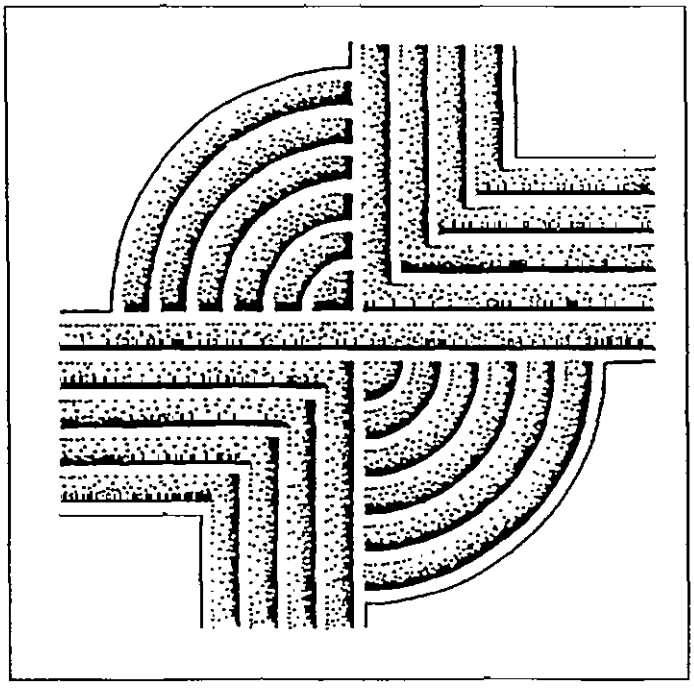
FORT STEWART 8 and 10: AN ARCHAEOLOGICAL SURVEY OF NATURAL RESOURCE MANAGEMENT UNITS A9.1, A12.1, A12.2, B7.2, B7.3, E6.3, E8.3, F7.2, AND F17.3, FORT STEWART, EVANS AND LIBERTY COUNTIES, GEORGIA



CHICORA RESEARCH CONTRIBUTION 258

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ABSTRACT

This study represents an intensive archaeological survey of 9 areas in Evans and Liberty counties. The survey areas are Natural Resource Management Units A9.1, A12.1, A12.2, B7.2, B7.3, E6.3, E8.3, F7.2 and F17.3.

Survey tracts NRMU A9.1(147.19 ha), A12.1 (209.40 ha), A12.2 (200.89 ha), B7.2 (135.26 ha), B7.3 (110.15 ha), E6.3 (89.23 ha), E8.3 (313.52 ha), and F17.3 (196.71 ha) are located in Liberty County.

Survey tract NRMU F7.2 (244.59 ha) is located in Evans County.

This work is being done in order to comply with the National Historic Preservation Act (Public Law 89-665, as amended by Public Law 96-515), Guidelines for Federal Agency Responsibilities, under Section 110 of the National Historic Preservation Act, Army Regulation AR 200-4, and 36CFR800 (Protection of Historic and Cultural Properties). The project is administered for the United States Army by the National Park Service (NPS), Southeast Regional Office. The scope of work specified that the entire project area be surveyed as high probability using transects and shovel tests spaced at 30 m intervals, or low probability using transects spaced at 30 m and shovel tests spaced at 50 m intervals.

The primary purpose of this investigation is to identify and assess the archaeological remains present at Fort Stewart for the National Register of Historic Places. There were also a number of secondary goals which included:

- exploring the effectiveness of the current Fort Stewart predictive model and examining prehistoric and historic patterns of land use, location, and site intensity;
- exploring site function/duration based on artifact content; and
- better understanding the regional culture history.

These investigations incorporated a review of previously reported site files located at the office of the base archaeologist. Previously recorded sites were located in survey tract NRMU A12.2 (9LI259), survey tract NRMU B7.2 (9LI315, 9LI318, 9LI375), and NRMU E8.3 (9LI338). In addition, the base's Historic Preservation Plan was consulted regarding sites or structures on the National Register of Historic Places within the nine survey areas.

Twenty-seven archaeological sites and 18 isolated occurrences (which are also assigned site numbers) were identified during the survey. One site and two isolated occurrences were located in NRMU A9.1. Two sites and an isolated occurrence were located in NRMU A12.1. Five sites, two isolated occurrence and a cemetery were located in NRMU A12.2. Four sites and four isolated occurrences were located in NRMU B7.2. Two isolated occurrences were located in NRMU B7.3. A historic earthen dam, site 9LI484, was located outside of the survey boundary for NRMU B7.2 and B7.3 in Taylors Creek. One site was located in NRMU E6.3. Three isolated occurrences, three sites, and one cemetery were located in NRMU E8.3. Six sites and two isolated occurrences were located in NRMU F7.2. Two sites, two isolated occerences, and one cemetery were located in NRMU F17.3.

Eleven sites are recommended as potentially eligible for inclusion on the National Register of Historic Places (designated by Fort Stewart as "indeterminate"). These include 9LI484, 9LI452, 9LI517, 9LI532, 9LI534, 9LI507, 9LI509, 9LI315, 9LI512, 9LI312, and 9LI531. The Georgia State Historic Preservation Office (SHPO) concurs with our recommendations of all sites, except for site 9LI534. The Georgia SHPO has determined that site 9LI534 is not indeterminate (potentially eligible) for the National Register of Historic Places (letter from Mr. Richard Cloues, Deputy State Historic Preservation Officer to Colonel Ovidio Perez, dated January 6, 1999). Sites located in NRMU E6.3 and F7.2 have been determined not eligible since "the information that makes the site eligible for the National Register under Criterion 'D' is inaccessible due to the presence of unexploded ordinance" (letter from Mr. Richard Cloues, Deputy State

Historic Preservation Officer to Lt. Colonel Carey W. Brown, dated June 22, 1998).

Identified Sites and Eligibility

Tract	Site	Assessment
A9.1	9LI524	IE
	9LI525	IE
	9LI526	IE
A12.1	9LI517	I
	9LI518	IE
	9LI519	IE
A12.2	9LI259	IE
	9LI520	IE
	9LI521	IE
	9LI522	IE
	9LI523	IE
	9LI532	I
	9LI533	IE
	9LI534	I*
B7.2	9LI315	I
	9LI318	IE
	9LI375	IE
	9LI499	IE
	9LI507	I
	9LI508	IE
	9LI509	I
	9LI514	IE
	9LI484	I
B7.3	9LI515	IE
	9LI516	IE
E6.3	9LI513	IE
E8.3	9LI338	IE
	9LI510	IE
	9LI511	IE
	9LI512	I
	9LI527	IE
	9LI528	IE
	9LI452	I
F7.2	9EV116	IE
	9EV117	IE
	9EV118	IE
	9EV119	IE
	9EV120	IE
	9EV121	IE
	9EV122	IE
	9EV123	IE
F17.3	9LI312	I
	9LI529	I
	9LI530	IE
	9LI531	IE
	9LI452	I

I= Indeterminate
IE= Ineligible
* The Georgia SHPO does not concur with our recommendation of indeterminate.

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ACKNOWLEDGMENTS

While the work at Fort Stewart was conducted in compliance with various national historic preservation requirements, we wish to thank all of those involved for their support and interest in the project. In particular, at Fort Stewart, we thank Mr. David McKivergan (Base Consulting Archaeologist) along with Brian Greer and Eric Giles (ORISE interns) for their assistance. Mr. William Rutlin of Integrated Training Area Management provided us with GPS assistance which allowed us to provide GPS differential corrections. Dr. David G. Anderson (National Park Service) administered the project for Fort Stewart. We appreciate his interest, encouragement, and confidence. Ms. Kimberly Washington (National Park Service) assisted us in navigating the paperwork for payment — a seemingly essential component of science.

We would also like to thank Mr. Steve Lotti of the Georgia Archaeological Site Files for providing direction concerning the filing of site information and assistance in providing publications related to the background research of this project.

The job, however, has been made much easier by the tremendous number of individuals who have gone before us and on whose work we have repeatedly relied. Some were instructors, some were colleagues, some were collectors, a few crossed these lines, and a very precious few were also friends.

The success of this project is largely due to the dedication and professionalism of the field crew which included Ms. Christie Crabtree, Mr. Gregg Dickey, Ms. Bonnie Frick, Ms. Heather Gray, Mr. Ian Hamer, Mr. John Hamer, Mr. Todd Hejlik, Mr. Rick Hill, Mr. James Ross, Mr. Roland Sawatzky, Ms. Andrea White, and Mr. Bryan Young. The survey's were conducted from March 1998, to July, 1998 and we appreciate their dedication and hard work. Thanks also to Ms. Kerri Barile and Mr. Todd Hejlik who helped process the collections.

INTRODUCTION

Survey Background

Investigations for Natural Resource Management Units A9.1, A12.1, A12.2, B7.2, B7.3, E6.3, E8.3, F7.2, and F17.3 on Fort Stewart, Georgia were conducted by Rachel Campo of Chicora Foundation, Inc. for the National Park Service. These nine Natural Resource Management Units consist of 1,066.02 ha. Fort Stewart is located in southeastern Georgia and encompasses portions of Liberty, Long, Tattnall, Evans, and Bryan counties (Figure 1). Natural Resource Management Units (referred to as NRMU) A9.1, A12.1, A12.2, B7.2., B7.3, E6.3, E8.3, and F17.3 are located in Liberty County and NRMU F7.2 is located in Evans County (Figure 2).

Two major highways run through the base. Georgia State Highway 144 travels east-west and Georgia State Highway 119 travels north-south. Intersecting these main roads at various locations within the base are a network of primary and secondary clay or sand roads. The clay based, primary roads provide access to a number of secondary perimeter and firebreak roads, as well as random two-rut vehicle tracts. A number of these roads, such as Georgia State Highway 144, follow eighteenth and nineteenth century roadbeds.

Survey tract NRMU A9.1 (147.19 ha.) is bounded by Georgia State Highway 144 to the northwest, Fort Stewart Road 54 to the west, and two intersecting unnamed firebreaks bound the southern and eastern sides of the tract (Figure 3).

The northwest boundaries of survey tracts NRMU A12.1(209.40 ha.) and A12.2 (200.89 ha) are also bounded by Georgia State Highway 144. The western boundary of A12.1 is Fort Stewart Road 51. The southeastern boundary of A12.1 is an unnamed firebreak that runs into a canal, which forms the eastern boundary with an unnamed road that runs beside Evans Heliport. NRMU A12.2 is divided into two areas, one northwest of Evans Heliport and one southeast of the heliport. The area northwest of Evans Heliport is bounded on the southwest by the unnamed road that leads to the heliport. The area to the southwest is bounded on the western edge by a canal (inhabited by alligators), and on the eastern edge by Fort Stewart Road 54 (Figure 3).

Survey tracts NRMU B7.2 and B7.3 consist of 135.26 ha and 110.15 ha., respectively. These tracts are situated just west of Small Arms Impact Area B4, with Small Arms Range Lima located directly next to B7.2. Fort Stewart Road 47 serves as the eastern boundary for both of these tracts. B7.2 is bounded to the north by Fort Stewart Road 144 and to the south by Fort Stewart Road 47A. The swamp and bluff edge directly before Taylors Creek serve as the western boundary for both B7.2 and B7.3. The southern boundary for B7.3 is the wetland, as shown in Figure 4.

Survey tract NRMU E6.3 is bounded to the south by Fort Stewart Road 144. The western and eastern boundaries were determined by soil types and meet to form a rough triangle (Figure 5).

Survey tract NRMU E8.3 (313.52 ha.) is bounded on the east by Georgia State Highway 129. Fort Stewart Road 85 served as the northern boundary, while Fort Stewart Road 23 marked the southern boundary. The swamp before the Canoochee Creek served as the western boundary. E8.3 is bisected in a north-south direction by Fort Stewart Road 22 and an abandoned railroad bed (Figure 6).

Survey tract NRMU F7.2 (244.59 ha.) is bounded on the north by Fort Stewart Road 11. The western boundary is marked by Fort Stewart Road T11 and Fort Stewart Road T11A. Fort Stewart Roads T21 and mark the eastern boundary of F7.2 (Figure 7).

Survey tract F17.3 (196.71 ha.) is bounded by Fort Stewart Road 22 to the north. Georgia State Highway 119 marks the eastern boundary and Fort Stewart Road 17 marks the western boundary (Figure 8).

All of the survey tracts are heavily wooded with a mix of pines and hardwoods. Cleared areas within the boundaries are generally the result of burning operations conducted by Fort Stewart personnel. A number of the tracts contain thick vegetation and a very dense

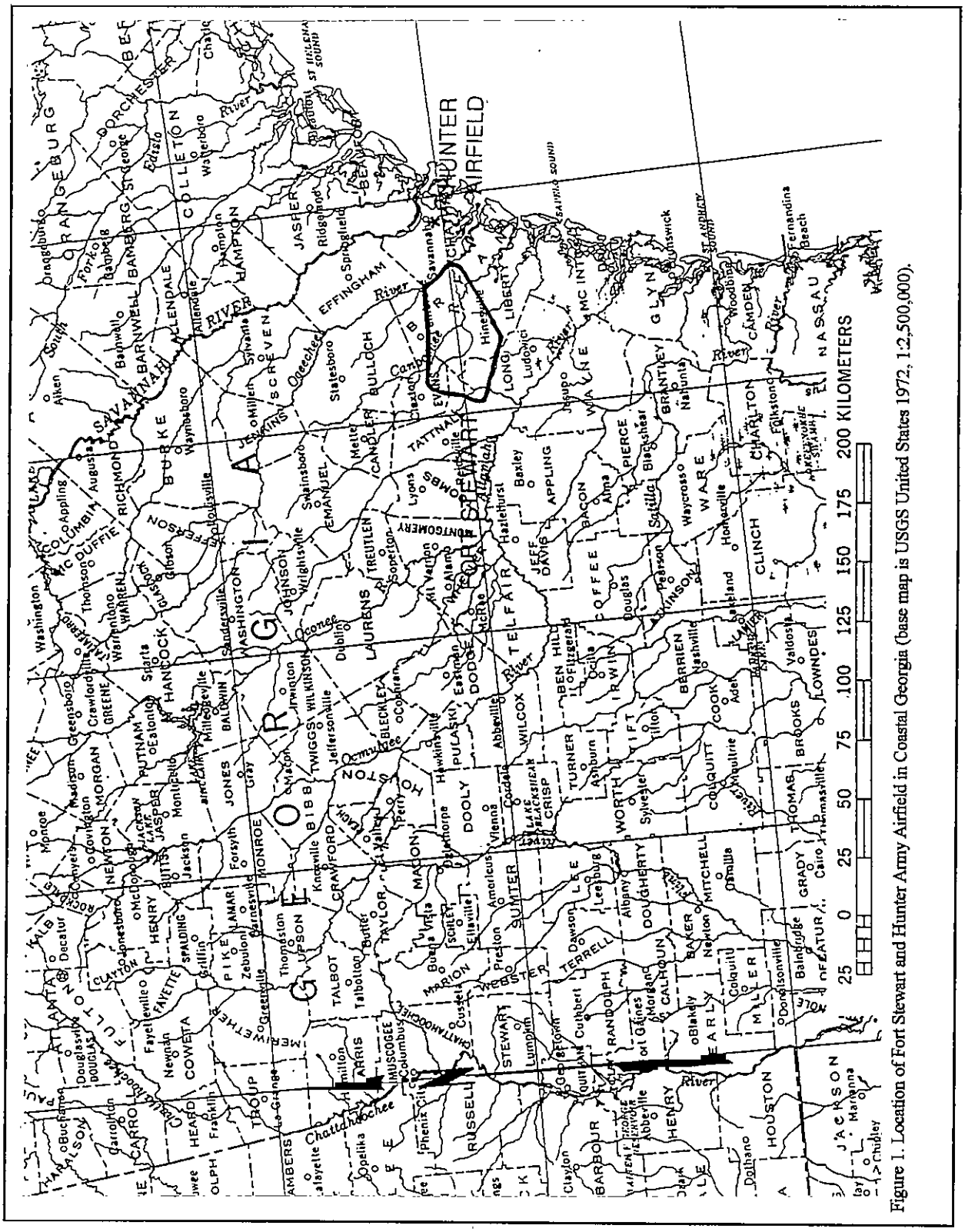

Figure 1. Location of Fort Stewart and Hunter Army Airfield in Coastal Georgia (base map is USGS United States 1972, 1:2,500,000).

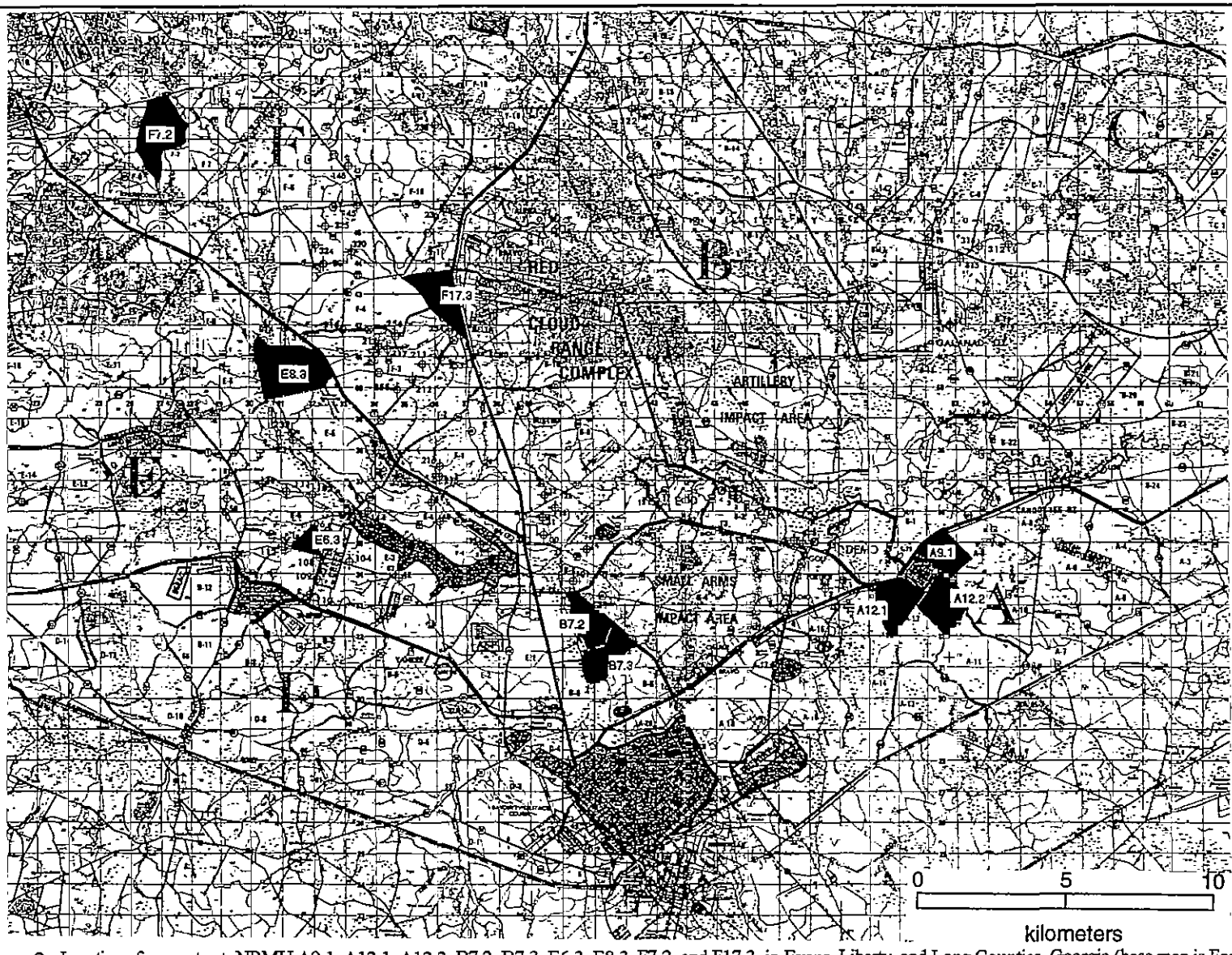

Figure 2. Location of survey tracts NRMU A9.1, A12.1, A12.2, B7.2, B7.3, E6.3, E8.3, F7.2, and F17.3 in Evans, Liberty, and Long Counties, Georgia (base map is Fort Stewart Military Installation Map, 1992).

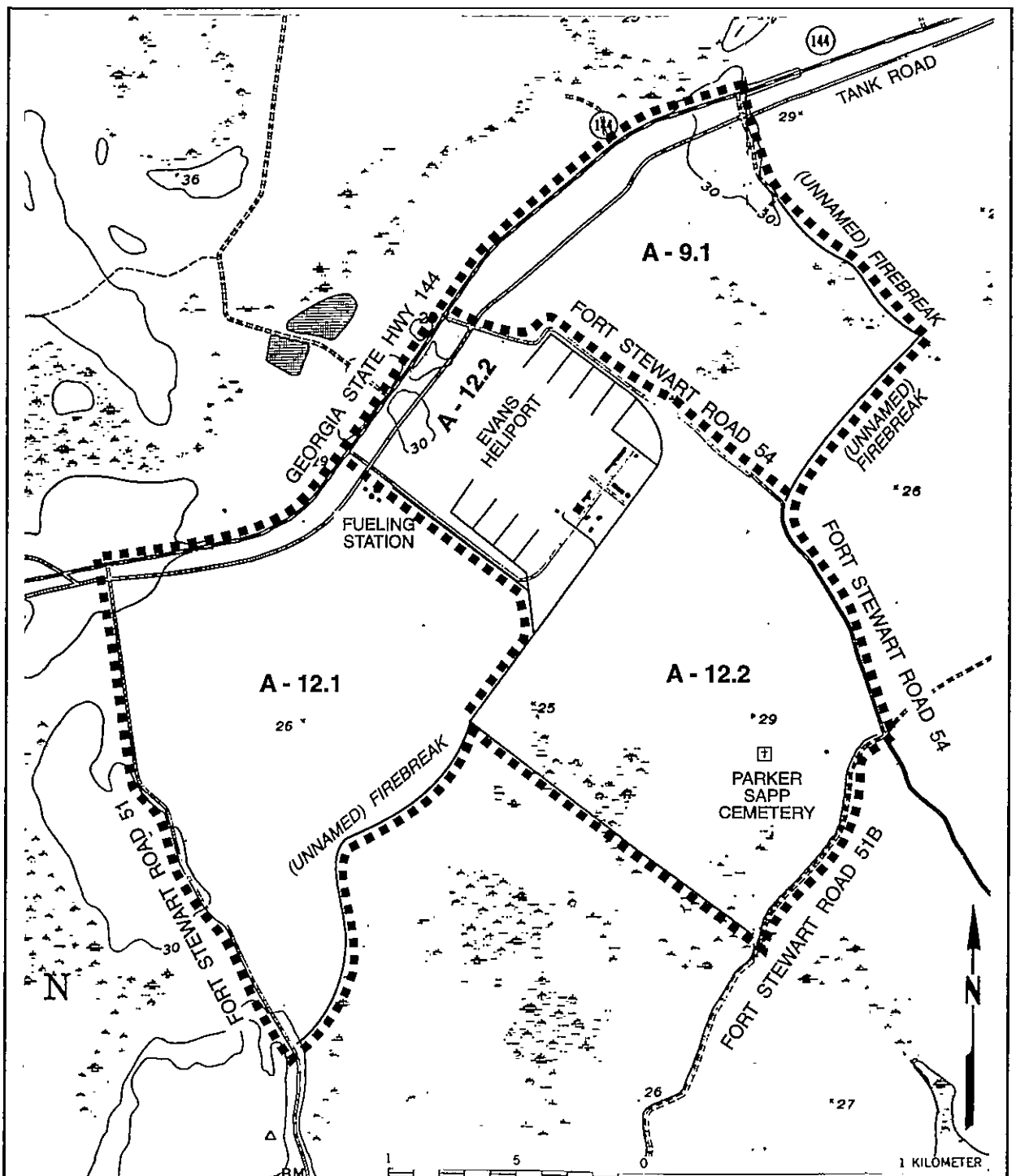

Figure 3. Survey tracts NRMU A9.1, A12.1, and A12.2 showing boundaries and major roadways (base map is USGS Trinity and Limerick NW, 1958PR73, 1:24,000).

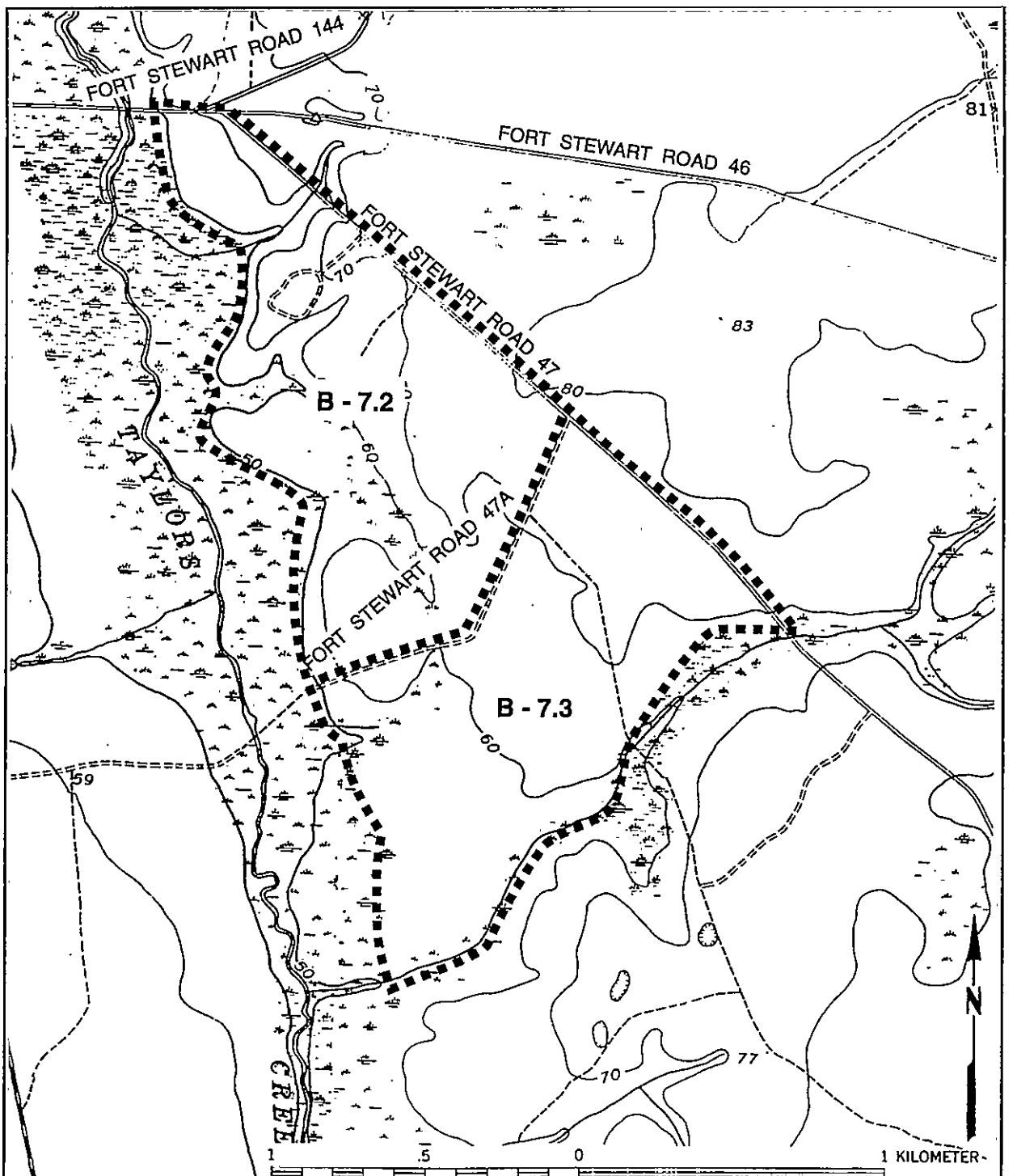

Figure 4. Survey tracts NRMU B7.2 and B7.3, showing boundaries and major roadways (base map is USGS Taylors Creek 1958PR73, 1:24,000 and Trinity, 1958PR73, 1:24,000).

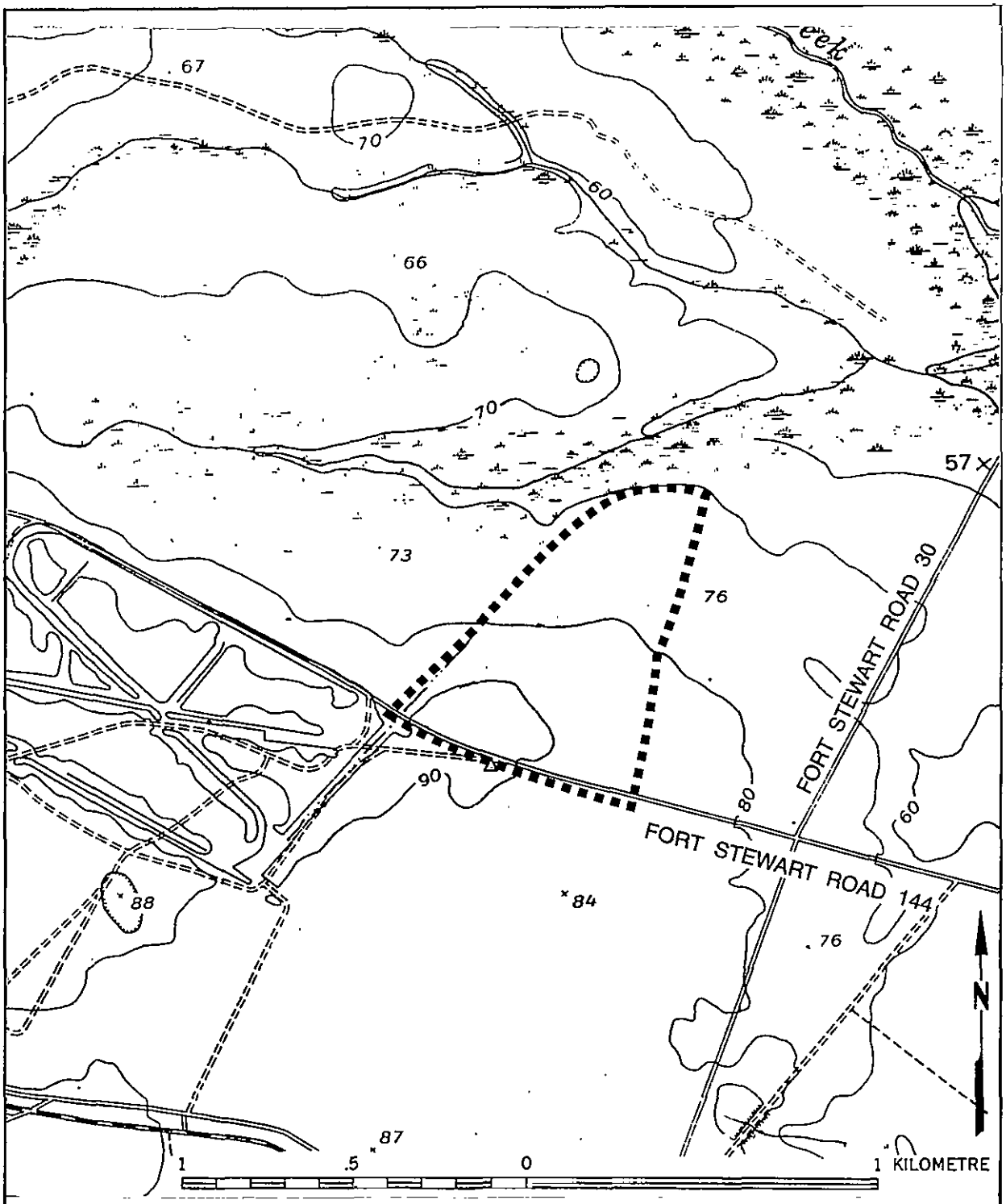

Figure 5. Survey tract NRMU E6.3, showing boundaries and major roadways (base map is USGS Taylors Creek 1958PR73, 1:24,000).

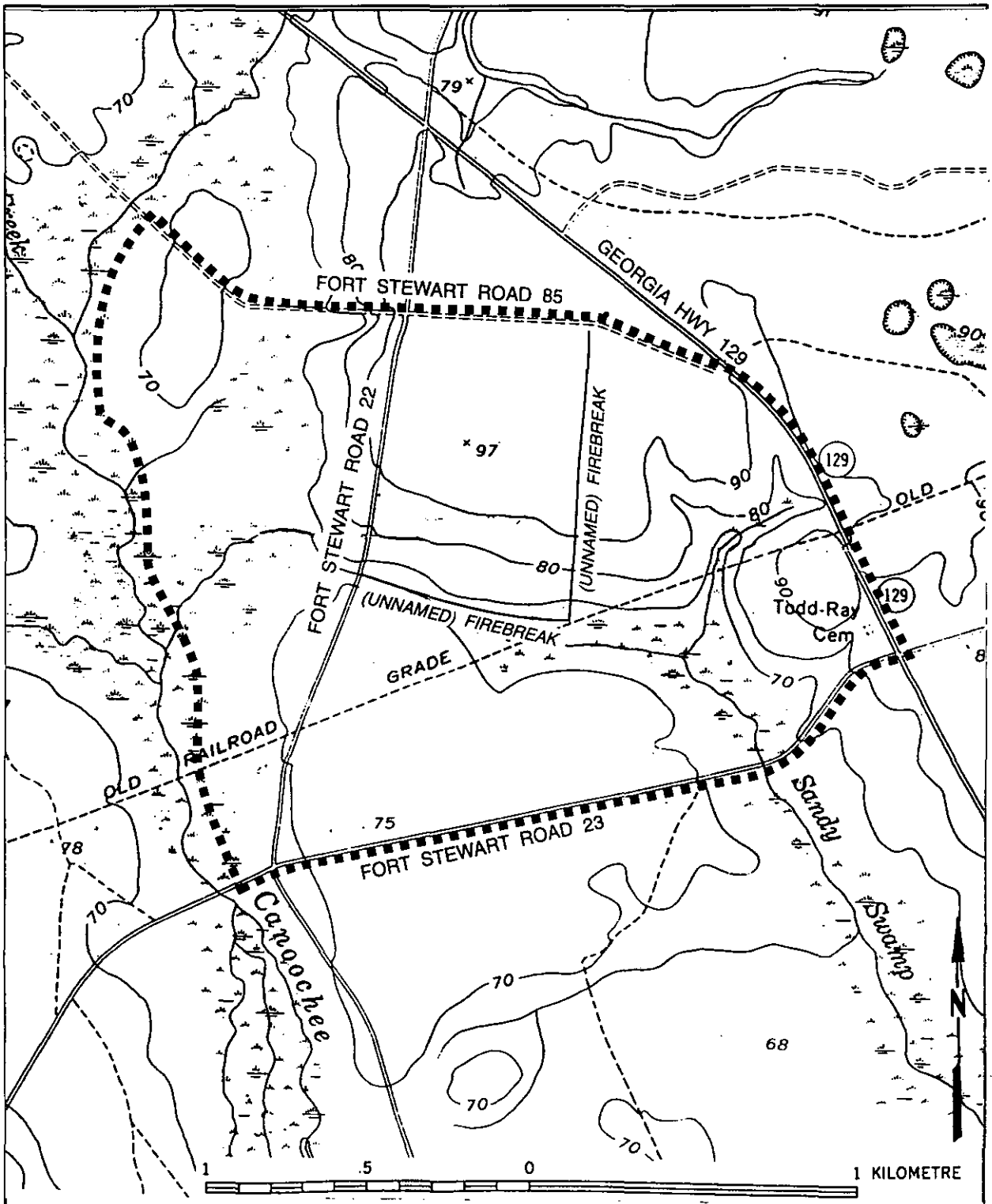

Figure 6. Survey tract NRMU E8.3, showing boundaries and major roadways (base map is USGS Taylor's Creek, 1958PR73, 1:24,000, and Willie, 1958PR73, 1:24,000).

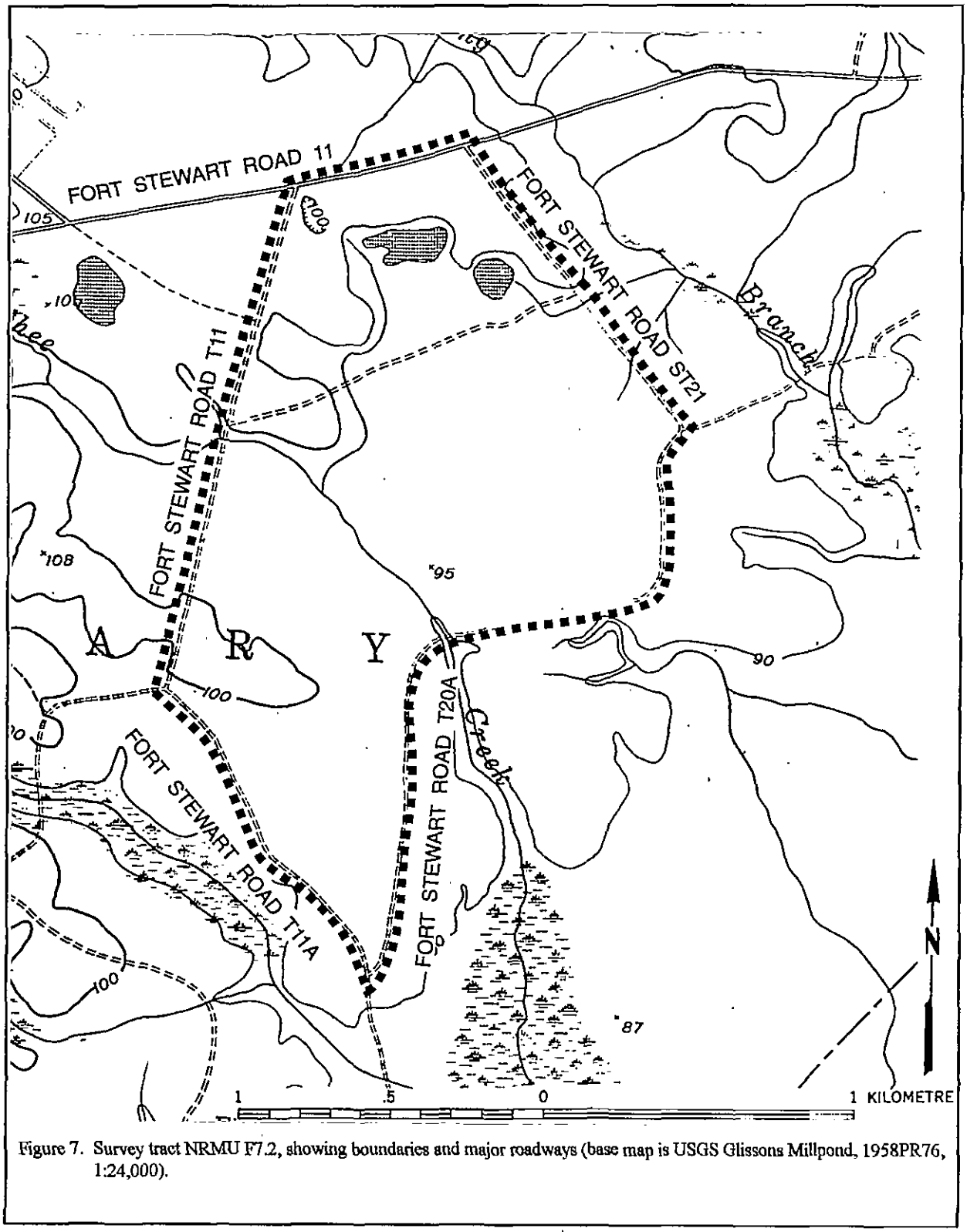

Figure 7. Survey tract NRMU F7.2, showing boundaries and major roadways (base map is USGS Glissons Millpond, 1958PR76, 1:24,000).

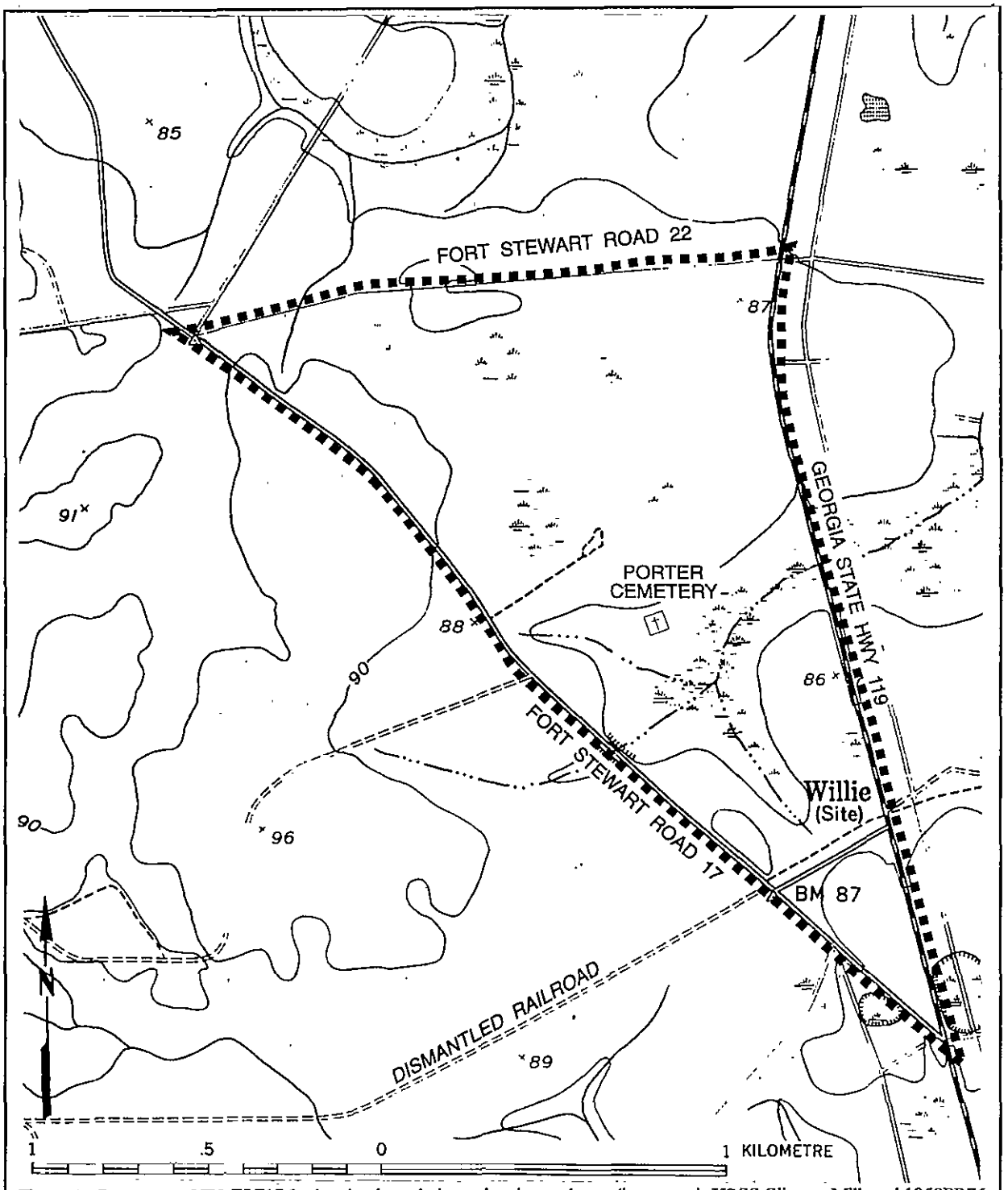

Figure 8. Survey tract NRMU F17.2, showing boundaries and major roadways (base map is USGS Glissons Millpond 1958PR76 1:24,000).

Table 1.
Metric Equivalents

LENGTH		
kilometer	km	0.62 miles
meter	m	39.37 inches or 3.28 feet
centimeter	cm	0.39 inches
millimeter	mm	0.04 inches
AREA		
hectare	ha	2.47 acres
square km	km^2	0.3861 square miles
WEIGHT		
metric ton	t	1.1 English tons
TEMPERATURE		
C to F = (C° x 1.8) + 32 = F°		

underbrush, particularly those tracts located near wetlands, swamps, canals and creeks. Only a few areas within these tracts contained stretches of open fields covered in grasses, such as food plots. Most of the topography for all of the tracts was relatively flat, although those tracts adjacent to Taylors Creek, B7.2 and B7.3, did contain slopes of about 10% and bluffs near the creek.

These survey tracts included two "walkover" tracts, F7.2 and E6.3, unsuitable for shovel testing due to the presence of unexploded ordinance. Surface collections, rather than shovel testing, were performed in these areas using transects spaced 30 meters apart. Technicians walked these transects, continually looking at the ground, and noted a negative or positive surface collection every 30 meters. Both areas had very low visibility, in some cases less than 25%. When a positive surface collection was encountered, the surrounding area was further surface collected using collection units, usually in 10 m square units.

The remaining survey tracts were examined using transects spaced at 30 m intervals. Shovel tests were excavated at 30 m intervals along these transects, in high probability areas, and at 50 m intervals in low probability areas. After a positive shovel test on the transect was identified, the area was further tested by using a north-south cardinal grid pattern, usually at 10 m intervals. Shovel tests were excavated at 20 m intervals for sites larger than 50 m across. A 50 cm square test unit was excavated at all sites (excluding those found in walkover survey tracts), other than isolated sites. Isolated finds are defined as sites that have fewer than five artifacts in a 20 diameter area.

Measurements, in compliance with the National Park Service scope of work, were taken using metric units. In order to maintain consistency throughout this research, all measurements are provided using metric units and Table 1 provides conversions to English measures. The only exception is the contours on site maps in feet, which are taken from United States Geological Survey maps.

These investigations incorporated a review of sites located within the survey areas and recorded by Fort Stewart's Consulting Archaeologists David McKivergan, and Thomas Pluckhahn, ORISE interns M. Clayton Helms and Eric Giles, Southern Research, Professional Analysts, and Bregman and Co. These reports are on file with the Georgia State Archaeological Site Files, located in Athens, Georgia.

In survey tract NRMU A12.2, one historic archaeological site (9LI259) was previously recorded by Professional Analysts. In survey tract NRMU B7.2, four historic sites (9LI318, 9LI499, 9LI375, and 9LI315) were previously recorded by Pluckhahn of Southern Research and ORISE interns Giles and Helms. A single historic site (9LI338) was recorded for NRMU E8.3 by McKivergan of Bregman and Company, Inc. The historic community known as Willie (9LI312), located in NRMU F17.3, was also previously recorded by Pluckhahn. In NRMU E8.3, site 9LI279, which is recorded as occurring directly outside of the eastern boundary of survey tract NRMU E8.3, was not found to extend into the survey tract. In addition, site 9LI351, recorded as being situated directly outside of the western boundary of NRMU F17.3, was found to not extend into the survey boundary of F17.3.

Fort Stewart's Historic Preservation Plan (Campbell et al. 1996) was consulted concerning sites or structures on the National Register of Historic Places within each survey tract. The Fort Stewart Historic Preservation Plan mentions (Campbell et al. 1996:136) the presence of the Willie Community, site 9LI312, in the early 1900s. At the time of the publication of FSHPP (*Fort Stewart Historic Preservation Plan*), the site had been defined only on the basis of surface observations of artifacts and some standing architecture. The present survey helps further define site 9LI312 in NRMU F17.3.

Historic and ethnographic background research for general background chapters was also conducted at the Hinesville and Savannah public libraries, the Georgia Historical Society in Savannah, the Atlanta History Center, the Georgia Department of Archives and History, and the Savannah District office of the United States Corps of Engineers. Published reports regarding previous surveys were also consulted.

A total of 27 sites and 18 isolated occurrences were identified in the survey tracts, including those sites which were previously recorded. Three of the 27 sites are historic cemeteries that were previously unrecorded as archaeology sites. Survey tract A9.1 contained one historic site (9LI524) and two isolated occurrences (9LI525 and 9LI526). NRMU A12.1 contained a multicomponent site (9LI517), a historic site (9LI518), and an isolated historic occurrence (9LI519). Survey tract A12.2 included the Parker-Sapp cemetery (9LI532), a revisit to historic site 9LI259, two historic sites (9LI520 and 9LI523), two multicomponent sites (9LI522 and 9LI534), and two isolated historic occurrences (9LI521 and 9LI533).

Survey tract B7.2 included revisited historic sites 9LI315 and 9LI318, and 9LI375, a multicomponent site. Two prehistoric sites (9LI507 and 9LI509), an isolated historic occurrence (9LI514), and an isolated multicomponent occurrence (9LI508) were also recorded in B7.2. Survey tract B7.3 produced only two isolated occurrences, one prehistoric (9LI515) and one historic (9LI516). An earthen dam in Taylors Creek, site 9LI484, was recorded directly outside of survey boundaries for NRMU B7.2 and B7.3.

Survey tract E6.3, a walkover area, produced a single isolated historic occurrence, (9LI513). A number of historic sites were located in survey tract E8.3, including Bethany-Todd Ray Cemetery (9LI512), a railroad bed (9LI452), a revisited isolated historic occurrence 9LI338, historic sites 9LI510 and 9LI527, an isolated historic occurrence (9LI528), and an isolated prehistoric occurrence (9LI511).

Survey tract F7.2, also a walkover area, included six historic sites (9EV116, 9EV117, 9EV119, 9EV120, 9EV121, and 9EV122), one historic isolated occurrence (9EV118) and an isolated prehistoric occurrence (9EV123). The historic Willie community (9LI312) was revisited and recorded in survey tract F17.3, in addition to Porter Cemetery (9LI529), railroad bed site 9LI452, and two isolated historic occurrences (9LI530 and 9LI531).

Of the archaeological sites identified, two prehistoric sites (9LI507 and 9LI509), three cemeteries (9LI512, 9LI529, and 9LI532), two multicomponent sites (9LI517 and 9LI534), and three historic sites (9LI312, 9LI452, and 9LI484) are recommended as potentially eligible (or "indeterminate," in the terminology used by Fort Stewart) for inclusion on the National Register of Historic Places. The Georgia State Historic Preservation Office concurs with all of our recommendations, except in the case of 9LI534. The Georgia SHPO has determined that 9LI534 is not eligible for the National Register of Historic Places. Sites recorded in survey tracts F7.2 have been declared ineligible by the Georgia State Historic Preservation Officer since information that might make the site eligible is "inaccessible" due to the presence of unexploded ordinance in the area.

As discussed above, site 9LI312, the historic Willie community, was recorded by Pluckhahn and mentioned in the Fort Stewart Historic Preservation Plan. This site probably extends into other areas outside of the survey boundary. As a result, the current investigation only hints at the site's extent and potential significance. Historic map research, discussed in the **Prehistoric and Historic Overview**, suggests that 9LI312 does extend southeast and southwest of the survey boundary.

Site 9LI452 is a historic railroad bed which runs through portions of both Long and Liberty County, and appears in both NRMU E8.3 and F17.3. It is part of site 9LG149 in Long County. The Georgia State Historic Preservation Division has determined that railroad beds that retain integrity are eligible for inclusion on the National Register of Historic Places. The bed itself is visible in the eastern portion of NRMU E8.3, but only very small portions of it are visible in NRMU F17.3.

Site 9LI484 is a historic earthen dam located in Taylors Creek west of the survey boundaries for NRMU B7.2 and B7.3. This site was not assessed archaeologically during this survey and is therefore recommended as indeterminate (potentially eligible).

Sites 9LI507 and 9LI509 are located in NRMU B7.2 adjacent to Taylor's Creek and are probably associated with the Woodland period, based on the presence of diagnostic ceramics. These two sites mainly contained undiagnostic small ceramic sherds and lithics.

The three historic cemeteries are marked with signs placed by the military and two contain unmarked graves. One of the cemeteries, Parker-Sapp Cemetery, was not tested for graves outside of the fenced area. All three cemeteries are fenced in.

The remainder of the sites and isolated occurrences are recommended as not eligible.

All of the historic sites contained artifacts dating from the mid-nineteenth to the early twentieth centuries. Two sites (9LI507 and 9LI509) contained diagnostic pottery that date to the Woodland Period.

Surveys were conducted from April 8, 1998 to July 15, 1998. Principal Investigator for the project was Dr. Michael Trinkley and Field Director for the project for the first two weeks was Mr. William Barr, after which time Rachel A. Campo took over this position and was assisted by Todd D. Hejlik. Field crew consisted of Ms. Christie Crabtree, Mr. Gregg Dickey, Ms. Bonnie Frick, Ms. Heather Gray, Mr. Ian Hamer, Mr. John Hamer, Mr. Rick Hill, Mr. James Ross, Mr. Roland Sawatzky, Ms. Andrea White, and Mr. Bryan Young.

Curation

Archaeological site forms have been filed with the Georgia Office of State Archaeology. The field notes, photographic materials, artifact catalogs, and artifacts resulting from these investigations have been curated at Fort Stewart using their accessioning and cataloging system. Delivery Order 8 was assigned accession number 40 and Delivery Order 10 was assigned accession number 42. All records and duplicate copies have been provided to Fort Stewart and will be maintained by that institution in perpetuity.

NATURAL SETTING

Physiography and Drainage

Fort Stewart, which encompasses about 103,550 ha, forms a roughly rectangular shape measuring about 32 km north-south by about 56 km east-west. The fort's most distinctive feature is perhaps its lack of relief. Elevations range from about 50 m in the west to about 3 m in the east.

Located entirely within the Coastal Plain Province on the southeastern Atlantic coast of Georgia, this area is often referred to as the Atlantic Coast Flatwoods (Looper 1982:66). The coastal plain is best known for its featureless plains and marshes in the east. The flatwoods are characterized by their nearly level topography and poorly drained soils. The mostly sandy loam to sandy topsoils are underlain by marine sands, loams, or clays. The soils generally have high water tables and are often found to be unsuitable for a broad range of residential and industrial activities (Hodler and Schretter 1986:36). The area is also characterized by inlets and creeks draining an extensive system of drowned river systems and shallow marsh-filled coastal lagoons. The topography consists of subtle undulations in the landscape revealing the ridge and bay topography of the beach ridge plains (Mathews et al. 1980:137).

Fort Stewart is largely confined to what is often called the Barrier Island District — an area of slight to moderate dissection created by the advance and retreat of former sea levels. As a result, there are six shoreline deposit complexes found parallel to the coastline in a step-like progression of decreasing elevations. This dissection has also resulted in marshes that exist in poorly drained lowlands. To the northwest are the Vidalia Uplands, a moderately dissected upland with a well developed dendritic stream pattern based on gravelly, clayey sands. The floodplains are typically narrow, except along the major rivers where wider, bordering swamps are often found (Hodler and Schretter 1986:17).

A number of relatively small streams and creeks, which are part of the Ogeechee River drainage system, make up Fort Stewart's drainage pattern. The Canoochee River is the main drainage for the base and flows west to east through the center of the reservation. A number of smaller tributaries such as Canoochee, Taylors, and Savage creeks flow into the Canoochee River. The eastern boundary of Fort Stewart is defined by the Ogeechee River (Figure 9).

Survey tracts NRMU A9.1, A12.1, and A12.2 lie south of Georgia State Highway 144 and east of Georgia State Highway 119. Survey tracts NRMU B7.2 and B7.3 are situated north of Georgia State Highway 144 and east of Georgia State Highway 119. NRMU E6.3 and E8.3 are located north of Georgia State Highway 144 and west of Georgia State Highway 119. NRMU E8.3 lies directly west of Georgia State Highway 129. Survey tract F7.2 is located north of Georgia State Highways 129 and 144 and west of Georgia State Highway 119. Survey tract NRMU F17.3 is located directly west of Georgia State Highway 119 and north of Georgia State Highway.

Watersheds in the tracts situated north of Georgia State Highway 144 and west of Georgia State Highway 119 drain either into the Canoochee Creek or into Taylors Creek. Drainages in survey tracts NRMU B7.2 and B7.3 also flow into Taylors Creek. Watersheds in survey tracts NRMU A9.1, A12.1, and A12.2 drain primarily into Raccoon Branch, which empties into the Jerico River.

Modifications to the physical landscape in most of the survey areas are minimal. The majority of landscape changes have been produced by floods that deposited alluvial soils, and the introduction of pre-World War II farm machinery. Only along the interior base roads are there major landscape modifications, produced by heavy machinery and military vehicles (see Trinkley et al. 1997:11), which range in severity. Modifications include the construction of borrow pits, ponds, firebreaks and roads (Figures 10 and 11).

Geology and Soils

The surface geology of Fort Stewart is dominated by sediments of Quaternary age (Hodler and Schretter 1986:12-13). Sand, silts, and clays originally

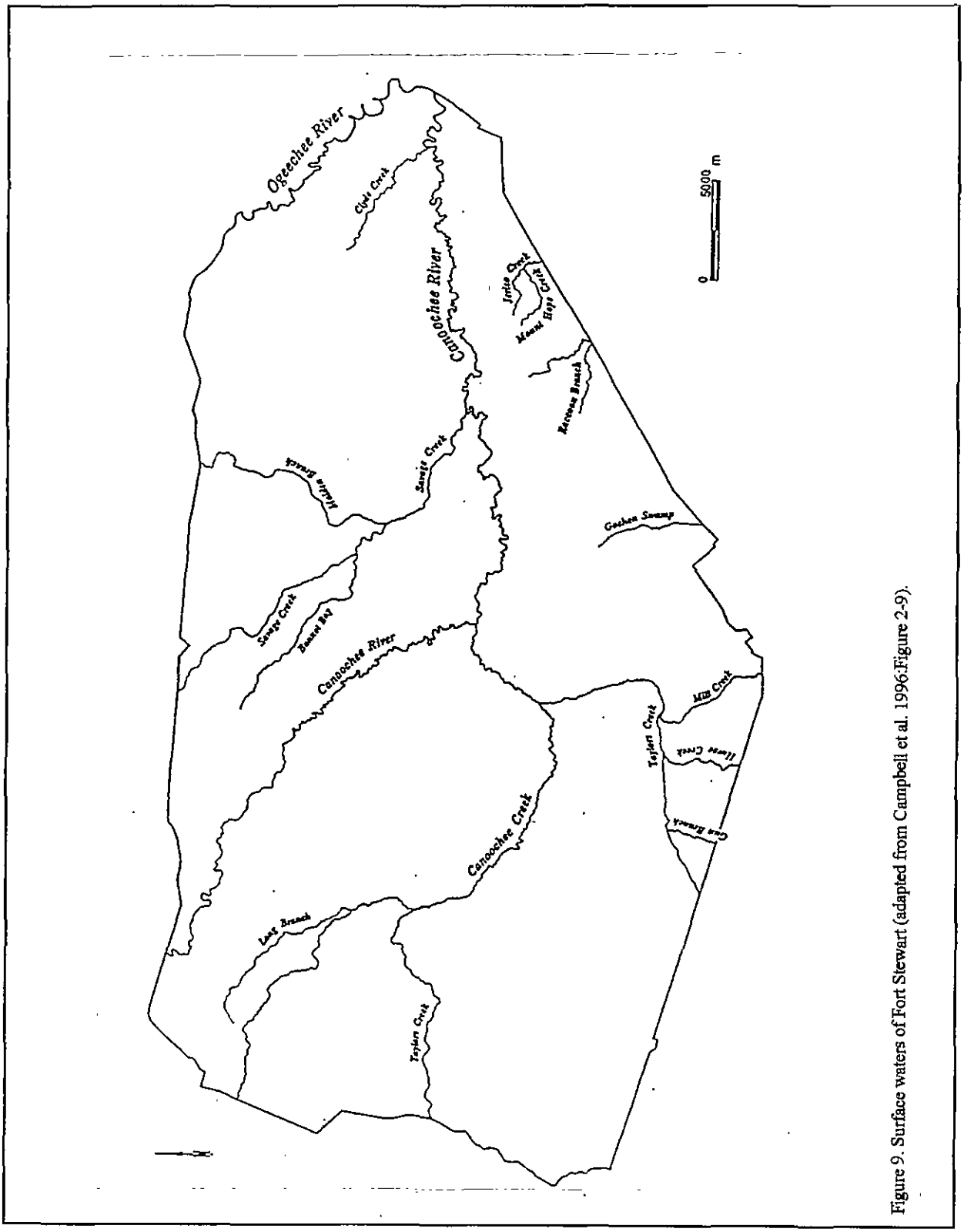

Figure 9. Surface waters of Fort Stewart (adapted from Campbell et al. 1996:Figure 2-9).

Figure 10. Landscape modifications caused by military vehicles.

Figure 11. Landscape modifications caused by military vehicles.

derived from the Appalachian Mountains and the interior Piedmont are organized into coastal fluvial and aeolian deposits which virtually blanket the Coast. These sediments were transported seaward and deposited during the Quaternary period. Underlying the surface sediments are bedrock sedimentary strata of Tertiary and Mesozoic age which are almost uniformly eroded and variously lithified (Mathews et al. 1980:2). The Mesozoic and Tertiary sedimentary rocks are infrequently exposed, usually in river banks and bottoms, in deep tidal channels, and in man-made quarries.

Of perhaps greatest significance in this discussion of coastal geology is an overview of chert resources. While agate, chalcedony, and jasper were also used by prehistoric groups, these materials occur in Georgia in very small amounts (Ledbetter et al. 1981:1-2), especially when compared to chert (Goad 1979:2). Chert, on the other hand, while occurring discontinuously, is present throughout the Coastal Plain, primarily associated with Paleozoic and Tertiary Period limestones. Depending on the various chemical impurities, Georgia chert ranges in color from black or brown to white, yellow, gray, and cream . Some cherts are fossiliferous.

While the Piedmont contributes a broad range of volcanic and metavolcanic materials important to prehistoric occupants, and may even contribute small quantities of jasper-like and agate material (Goad 1979:5), chert is found primarily in the Ridge and Valley Province in the extreme northwestern corner of the state and the Coastal Plain. Ledbetter and his colleagues note that chert-like materials may also occur "spottily" in the 20 km wide "hinge zone" between the Towaliga-Hartwell Fault and the Middleton Lowndesville Fault in the Inner Piedmont of Georgia (Ledbetter et al. 1981:6).

Goad reports that the major occurrences of chert in the Georgia Coastal Plain are found associated with Tertiary Period formations, primarily from Eocene and Oligocene Epoch deposits. Goad (1979:19) observes that, "the major occurrences of Coastal Plain chert are in southwestern Georgia, west of the Flint River, along the Fall Line, and in southeast Georgia along the Savannah River below Augusta."

Coastal Plain chert may be found as residual nodules and boulders, scattered along streams and ridges, or as cropping beds. Goad notes that different strata have recognizable chert forms, although the great range in variation among Coastal Plain chert makes the identification of specific point sources more difficult and less reliable than the identification of chert sources in the Ridge and Valley province (Goad 1979:24).

Sources have been identified from Baker, Bibb, Burke, Calhoun, Crisp, Decatur, Dooly, Dougherty, Early, Grady, Houston, Jefferson, Laurens, Lee, Macon, Miller, Mitchell, Pulaski, Randolph, Richmond, Screven, Seminole, Stewart, Sumter, Thomas, Twiggs, Quitman, Washington, and Worth counties (Goad 1979:81-88). Sources have also been identified in Bulloch and Bryan counties (McKivergan 1999: personal communication). The closest sources to Fort Stewart are found in Screven County, about 100 km from the study area, and appear to be Eocene/Oligocene boulders and materials associated with Briar Creek. This chert, which has a dull luster and is grainy, ranges in color from black or tan to red, yellow, cream and white. The chert is fossiliferous and, when heated, resembles the Claiborne Stage cherts (described below) in color and texture. Other cherts include dark grays, slate blacks, clears, creams, browns, whites, and blue-whites or mottled colors, and textures can range from smooth to grainy. All are fossiliferous with a dull, soft luster. Heat treatment produces a glossy surface with yellow to dark red colors (Goad 1979:23-24).

In nearby Burke County, cherts are associated with Claiborne Group deposits from the Eocene Epoch. These cherts range in color from red, yellow, cream, and blue to mottled or striped. They typically have a dull sheen and are heavily fossiliferous. When heat treated the material turns to pink, dark red, or even bright orange. The fossil inclusions turn white, giving the chert a "spotted" appearance. Porous flints, jasper, and chalcedony are also present with the cherts in these deposits (Goad 1979:21).

Chert sources from the Oligocene Epoch occur in Laurens County, about 150 km to the northwest of the project area. This chert is typically dense and compact, vitreous, and ranges in color from translucent to red, yellow, or brown, with few fossil inclusions. Heat treated specimens are typically glossy and red or deep brown. Occasional jasper nodules are associated with this chert (Goad 1979:24).

The geomorphology of the area is greatly influenced by the raising and lowering of sea level during the Pleistocene and Holocene epochs, when glaciers

Table 2.
Soil Series in all Survey Tracts

Soil Series	Drainage	Water Table	A Horizon	B Horizon
Albany	somewhat poor	30-76 cm	0-1.24 m, loamy fine sand to fine sand	1.24-1.78 m, clay to sandy clay
Bayboro	very poor	< 15 cm	0-27.94 cm, loam	27.94cm-1.78 m, clay to sandy clay
Bibb	poor	15-45 cm	0-33.02 cm, sandy loam	*33.02cm-1.65 m, sandy loam
Blanton	moderately well	1.5-1.8 m	0-1.17 m, loamy sand to sand	1.72-2.01m, sandy loam to sandy clay loam
Centenary	moderately well	1.-1.5 m	0-10.16 cm, clay loam	10.16 cm-1.52 m, clay loam to clay
Chipley	moderately well	61-91 cm	0-15.24cm, sand	*15.24cm-2.13 m, sand
Dothan	well	n/a	0-35.56 cm, loamy sand to loamy fine sand	35.56cm-1.52 m, sandy loam to sandy clay loam
Echaw	moderately well	76cm-1.5 m	0-1.19 m, fine sand	1.19-1.78 m, fine sand
Ellabelle	very poor	<15cm	0-58.42 cm, loamy sand	58.42 cm-1.83m, sandy loam to sandy clay loam
Fuquay	well	n/a	0-73.66 cm, loamy sand	73.66 cm-1.93 m, sandy loam to sandy clay loam
Johnston	very poor	<46 cm	0-1.09 m, mucky loam	*1.09-1.52 m, sandy loam
Leefield	somewhat poor	46-76 cm	0-55.88 cm, loamy sand	55.88 cm- 1.83 m, sandy loam to sandy clay loam
Mandarin	somewhat poor	46 cm-1 m	0-30.48 cm, fine sand;and 60.96-91.44 cm, fine sand	30.48-60.96 cm, fine sand; and 91.44 cm-1.83 m, fine sand
Mascotte	poor	surface-<31cm	0-35.56 cm, fine sand;and 53.35-81.28 cm, fine sand	35.56-53.35 cm, fine sand; and 81.28cm-1.78 m sandy clay loam
Ocilla	somewhat poor	30-76 cm	0-86.36 cm, loamy fine sand	86.36 cm-1.83 m, sandy loam to sandy clay loam
Osier	poor	<30 cm	0-27.94 cm, loamy sand	*27.94cm-1.65 m, loamy sand to sand
Pelham	poor	15-46 cm	0-63.5 cm, loamy sand	63.5cm-1.60m, sandy loam to sandy clay loam
Pooler	poor	< 30 cm	0-12.70cm, fine sandy loam	12.70cm-1.42 m, sandy clay, to sandy clay loam
Riceboro	poor	15-30 cm	0-63.5 cm, loamy fine sand	63.5cm-1.78 m, sandy clay loam to sandy clay
Rutledge	very poor	< 30 cm	0-53.34 cm, fine sand	*53.34 cm- 1.55 m loamy fine sand
Stilson	moderately well	76-91 cm	0-73.66 cm, loamy sand	73.66cm-1.83 m, sandy loam to sandy clay loam
Wahee	somewhat poor	15-46 cm	0-35.56 cm, sandy loam	35.56cm-1.91 m, sandy clay loam to clay

*Represents C Horizon, no B Horizon present

repeatedly advanced and retreated in the northern portions of the United States. While these ice masses did not extend southward to Georgia, they nevertheless dramatically affected the area's geology by influencing the ocean levels which generated a series of marine terraces (Hodler and Schretter 1986:27; Looper 1982:2-3; Campbell et al. 1996:19). Fort Stewart incorporates portions of the Sunderland, Wicomico, Penholoway, Talbot, and Pamlico marine terraces which range in elevation from 52 m above mean sea level (AMSL) to 8 m AMSL (Hodler and Schretter 1986:27; Campbell et al. 1996:19-22).

Today, modern soil science identifies 11 general soil units in Liberty County and 8 in adjacent Evans County. Overall, the soil profiles in these counties exhibit characteristics that reflect "moderately well drained and somewhat poorly drained soils on ridges, and poorly drained and very poorly drained soils on flood plains and in broad low areas, depressions, marshes, and drainageways" (Looper 1982:1).

Five of Liberty County's 11 general soil units are found in the survey tracts in the county, including the Stilson-Pelahm-Phycomycete-Pelham-Leefield, Ocilla-Riceboro-Pooler, Bladen-Pooler-Rice, and Ellabelle-Johnston-Bibb units. The Stilson-Pelham-Fuquay unit is characterized by poorly drained and moderately well drained sandy soils on nearly level surfaces. The Mascotte-Pelham-Leefield and Ocilla-Riceboro-Pooler units are characterized by somewhat poorly drained and poorly drained sandy soils on nearly level surfaces. Bladen-Pooler-Rice soils are described as poorly drained soils on nearly level ground. The Ellabelle-Johnston-Bibb unit is characterized by very poorly drained and poorly drained sandy soils on nearly level surfaces (Looper 1982).

In Evans County, two of the eight general soil units are found in survey tract NRMU F7.2, the only survey tract in Evans County. These include the Pelham-Leefield and Osier-Pelham units. The Pelham-Leefield unit consists of poorly drained and somewhat poorly drained soils mainly on upland flats. The Osier-Pelham unit is characterized by poorly drained soils on flood plains and flats (Paulk 1980:9).

These general soil units are further divided into soil series, which consist of soils with similar profiles and major horizons. Soil series are then divided into several soil phases, such as Pooler sandy loam (Paulk 1980:14). The soil series described by Looper (1982) and Paulk (1980) are examples of typical soils in that series, including a discussion of the depths, hues, values and chromes for each horizon. The horizons discussed by Looper and Paulk are limited to the A and B horizons of a soil series. A horizons represent the top layer of soil that is generally dark and has high amounts of organic material. B horizons represent the horizon under A that is a mineral zone, developed from unaltered parent material, or C horizon, and the bedrock, or R horizon (Rapp and Hill 1998:31). A brief description of soil series, based on discussion by Looper and Paulk, located in the survey tracts is found in Table 2. Soil series will be discussed below for each survey tract. The following paragraphs will address the soils in each survey tract, with particular attention given to the percentages of soil types and draining characteristics present in each tract.

Survey tract **NRMU A9.1** consists of Blanton, Ellabelle, Mandarin, Mascotte, Ocilla, Pelham, and Pooler soils (Figure 12). These soil series have water tables that occur from less than 15 cm to 1.8 meters (Table 2). In general, these soils are loamy sands to fine sands of varying depths (Table 2).

The greatest percentage of soil types in NRMU A9.1 include Pooler fine sandy loam, a poorly drained soil, which makes up 31% of the total soils, and Ellabelle loamy sand, a very poorly drained soil, which makes up 28% of the total soils (Table 3). Both Pooler fine sandy loam and Ellabelle loamy sand are frequently ponded from late fall to mid-spring, and are unsuitable for farming due to the excessive wetness of the soils (Looper 1982:24, 34). Almost half of the total soils in NRMU A9.1 are poorly drained soils, while only 4% of the total soils are moderately well drained (Table 4). In this

Table 3
Soil Types by Percentage in NRMU A9.1

Soil Type	Percentage
Pooler fine sandy loam	31%
Ellabelle loamy sand	28%
Pelham loamy sand	15%
Ocilla loamy fine sand	12%
Blanton sand	4%
Mandarin fine sand	4%
Mascotte fine sand	3%
Pits	3%

Table 4.
Percentages of Drainage Characteristics in NRMU A9.1

Drainage Characteristic	Percentage
Poor	49%
Very poor	29%
Somewhat poor	16%
Moderately well	5%

survey tract, Blanton, Pelham, Mascotte, Ocilla, and Ellabelle soils, which range from very poor to moderately well drained, were designated as high probability areas, accounting for 62.94 ha. These soils generally have water tables that range from less than 15 cm to 1.8 m during the winter and spring seasons (Table 2). Low probability soils included Ellabelle, Pooler, and Mascotte soils, accounting for 84.26 ha. These soils range in drainage from very poor to poor, and the water table occurs from less than 15 cm to 31 cm (Table 2). In NRMU A9.1, areas that are normally wet were dry during this season, which was apparent by the water lines on trees and scorched appearance of the ground cover.

Pooler, Rutledge, Wahee, Ocilla, Albany and Bayboro soils are present in survey tract **NRMU A12.1** (Figure 12). Water tables in A12.1 soils range from less than 15 cm to 76 cm (Table 2). These series consist of a range of soil types, including loam, fine sands, and sandy loams. Pooler fine sandy loam accounts for 47% of the total soils in NRMU A12.1 and Ocilla loamy fine sand accounts for 30% (Table 5). A high water table for Ocilla soils limits vegetation growth that is not tolerant of wet conditions, while Pooler soils are unsuitable for farming due to the wetness of the soil (Looper 1982:32-33).

Table 5.
Soil Types by Percentage in NRMU A12.1

Soil Type	Percentage
Pooler fine sandy loam	47%
Ocilla loamy fine sand	30%
Bayboro loam	7%
Pelham loamy sand	6%
Mascotte fine sand	4%
Rutledge fine sand	2%
Wahee sandy loam	2%
Albany loamy fine sand	1%

More than half of the soils in NRMU A12.1 are poorly drained, while the remainder of the soils are somewhat poorly to very poorly drained (Table 6). High probability soils included Albany, Bayboro, Ocilla, Pelham, Pooler, and Rutledge soils, accounting for 107.27 ha. Water tables for these soils generally range from less than 15 cm to 76 cm (Table 2). Low probability soils include Mascotte, Pooler, Wahee, and Ellabelle soils, at 102.13 ha. These low probability soils have water tables that range from less than 15 cm to 31 cm. Large areas of standing water were encountered during the survey of NRMU A12.1. Other areas appeared to normally be wet, due to the water line on trees and the scarred ground cover, but during shovel testing seasonal water was not reached until depths of around 30-40 cm below the surface.

Table 6.
Percentages of Drainage Characteristics in NRMU A12.1

Drainage Characteristic	Percentage
Very poor	57%
Somewhat poor	33%
Poor	10%

Survey tract **NRMU A12.2** consisted of a wider range of soils than either NRMU A9.1 and A12.1 (Figure 12), with Pooler soils compromising the largest percentage (Table 7). As has been mentioned, Pooler soils are generally too wet to be used as farming land.

Table 7.
Soil Types by Percentage in NRMU A12.2

Soil Type	Percentage
Pooler fine sandy loam	48%
Ellabelle loamy sand	14%
Mascotte fine sand	14%
Pelham loamy sand	7%
Bayboro loam	5%
Ocilla loamy fine sand	4%
Riceboro loamy fine sand	4%
Chipley sand	2%
Albany loamy fine sand	1%
Wahee sandy loam	1%

Almost three-quarters of the soils in NRMU A12.2 are poorly drained, while only 2% are moderately

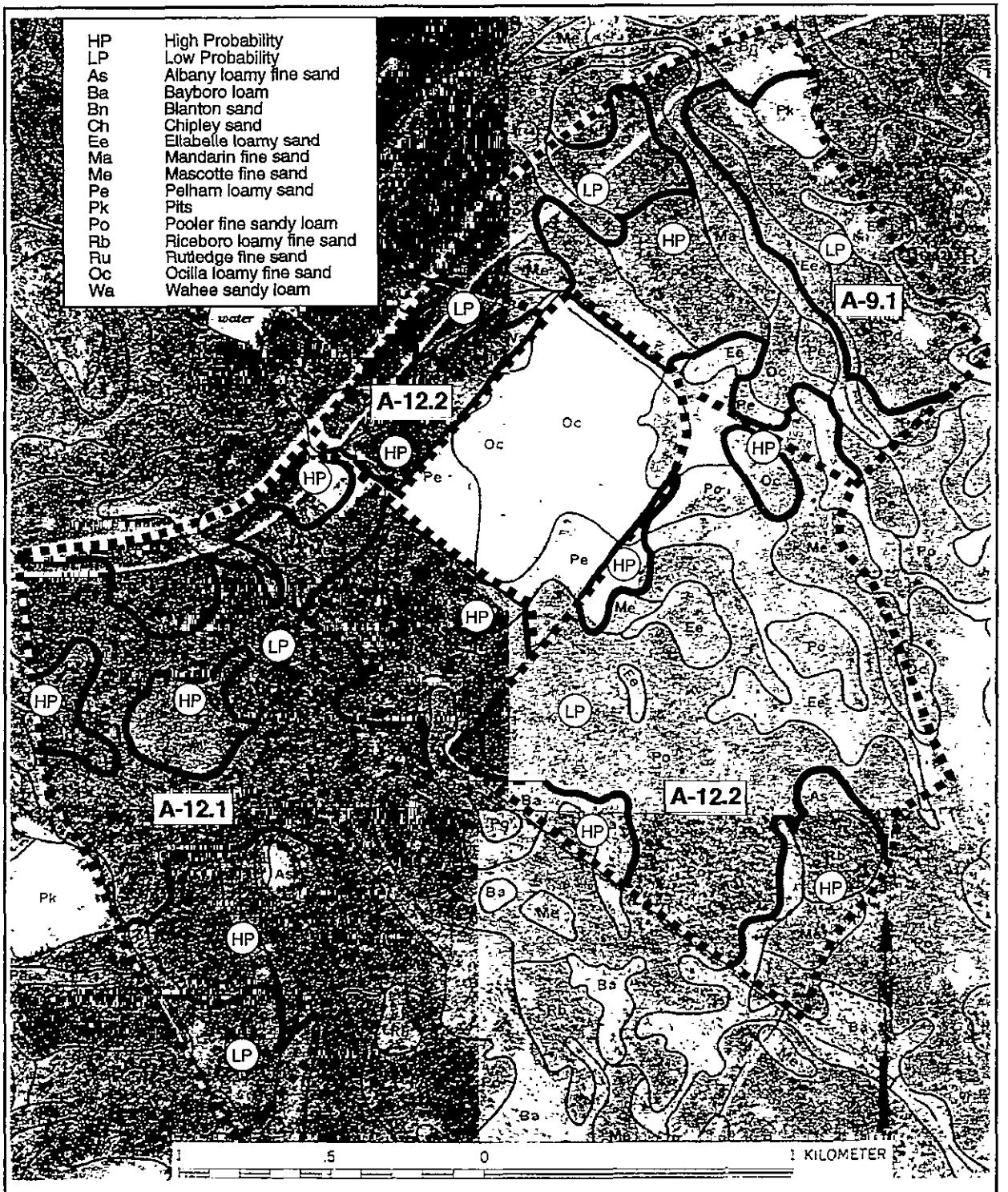

Figure 12. Soil types and probability areas in survey tracts NRMU A9.1, A12.1, and A12.2, Liberty County (adapted from Looper 1982).

Table 8.
Drainage Characteristics by Percentage in NRMU A12.2

Drainage Characteristic	Percentage
Poor	72%
Very poor	19%
Somewhat poor	7%
Moderately well	2%

well drained (Table 8). Chipley, Pelham, Bayboro, Albany, Rutledge, Mascotte, and Ocilla soils are high probability soils in NRMU A12.2, accounting for 60.20 ha. These soils have a large range in water table depths, from the surface to 91.4 cm. Drainages also range from moderately well to very poorly drained (Table 2). Low probability soils account for 140.69 ha, and include Ellabelle, Pooler, Mascotte and Bayboro soils. Drainage characteristics for the low probability soils are poor to very poor, and the water tables occur from the surface to less than 31 cm (Table 2). Much of the area in NRMU A12.2 was wet, with water appearing in shovel tests as high as 20 cm below the surface, although in general water that appeared in shovel tests occurred at around 30 cm below the surface. However, much of NRMU A12.2 is obviously and frequently under water, although not at the time of the survey, as indicated by water marks on trees and scarred ground cover. Sites in NRMU A12.2 were located in Albany, Chipley, Ocilla, Pelham and Pooler soils.

Survey tract **NRMU B7.2** consisted of nine soils series, including Ellabelle, Leefield, Fuquay, Mascotte, Mandarin, Osier, Pelham, and Rutledge soils (Figure 13). In general, these soils are fine and loamy sands and have water tables that range from less than 15 cm to 1.07 m below the surface. These soils contributed relatively similar percentages to the overall soil makeup, with Leefield loamy sand and Stilson loamy sand contributing the greatest percentage (Table 9).

Table 9.
Soil Types by Percentage in NRMU B7.2

Soil Type	Percentage
Stilson loamy sand	20%
Leefield loamy sand	18%
Mascotte fine sand	13%
Mandarin fine sand	11%
Pelham loamy sand	11%
Fuquay loamy sand	9%
Rutledge fine sand	9%
Osier loamy sand	6%
Ellabelle loamy sand	15

The largest percentage of soils in NRMU B7.2 were somewhat poorly drained (Table 10). Only 9% of the soils were well drained. All soils shown in Table 9 were designated high probability soils, accounting for 120.82 ha, with the exception of Mascotte and Ellabelle soils, which account for 14.44 ha of low probability areas. The high probability soils range in drainage from well to very poorly drained, while the low probability soils are very poorly and poorly drained (Table 2). High probability soils located next to the swamp associated with Taylor's Creek were often wet, sometimes as high as 10 cm below the surface, but generally water appeared in shovel tests at around 30 cm below the surface.

Table 10.
Percentages of Drainage Characteristics in NRMU B7.2

Drainage Characteristics	Percentage
Somewhat poor	32%
Poor	29%
Moderately well	20%
Very poor	10%
Well	9%

Six soil series make up survey tract **NRMU B7.3**, including Mandarin, Mascotte, Pelham, Johnston and Bibb, Rutledge, and Echaw and Centenary soils (Figure 13). These soils generally include fine sands and sandy loams and have water tables that range from the surface to 1.07 m below the ground surface (Table 2).

Mandarin soils make up the greatest percentage of soils in NRMU B7.3, followed by Johnston and Bibb soils (Table 11). Mandarin and Johnston and Bibb soils are characterized by fine sands, and mucky and sandy loam. Soils in NRMU B7.3 are not as varied as those in NRMU B7.2, although the tracts are located adjacent to one another.

The majority of soils in NRMU B7.3 are somewhat poorly drained (Table 12). Moderately well drained soils account for only 14% of the total soils. High probability areas include Mandarin, Rutledge, Pelham, Echaw and Centenary soils, accounting for 90.31 ha. Mascotte and Johnston and Bibb soils account for

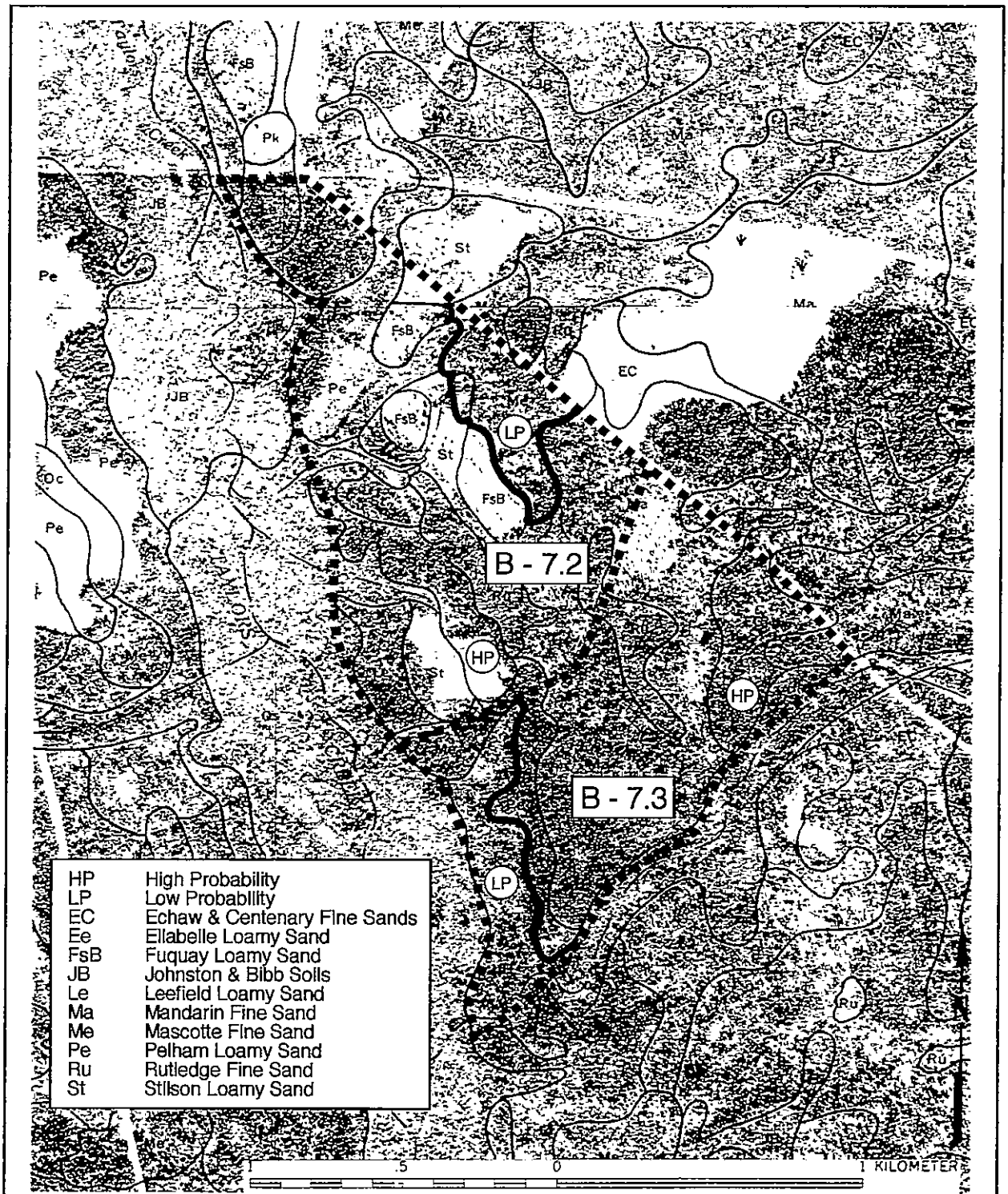

Figure 13. Soil types and probability areas in survey tract NRMU B7.2 and B7.3, Liberty County (adapted from Looper 1982).

Table 11.
Soil Types by Percentage in B7.3

Soil Type	Percentage
Mandarin fine sand	51%
Johnston and Bibb	18%
Echaw and Centenary fine sands	14%
Pelham loamy sand	8%
Rutlege fine sand	5%

19.84 ha of the survey tract and are the low probability soils. The high probability soils range in drainage from very poorly to moderately well drained.

The low probability area is situated adjacent to swamp associated with Taylor's Creek, and is characterized as poor to very poor in drainage. During the survey, soils located adjacent to Taylor's Creek were often wet at about 40-60 cm below the surface, which is consistent with information provided by Looper (1982:27-29).

Table 12.
Percentage of Drainage Characteristics in NRMU B7.3

Drainage Characteristics	Percentage
Somewhat poor	51%
Very poor	23%
Moderately well	14%
Poor	12%

Survey tract **NRMU E6.3** was surveyed as a walkover area, due to the presence of unexploded ordinance in the area. No subsurface testing was undertaken in this area, therefore limiting information that could be obtained about the soils in this survey tract. Leefield and Mascotte soils contributed the greatest percentage of soils to the survey tract, at 35% and 30%,

Table 13.
Soil Types by Percentage in NRMU E6.3

Soil Type	Percentage
Leefield loamy sand	35%
Mascotte fine sand	30%
Ellabelle loamy sand	13%
Stilson loamy sand	12%
Pelham loamy sand	9%

respectively (Table 13). All of the soils in NRMU E6.3 are generally characterized as somewhat poorly to very poorly drained, with the exception of Stilson soils, which are moderately well drained (Table 2). The water table for these soils ranges from less than 15 cm to 1.07 m below the surface.

Only 12% of the soils in E6.3 were moderately well drained, while the remainder of the soils were poorly drained (Table 14). Leefield, Mascotte, Stilson, and Pelham soils were determined to be high probability areas, accounting for 46.56 ha (Figure 14). Low

Table 14.
Percentage of Drainage Characteristics in NRMU E6.3

Drainage Characteristics	Percentage
Poor	40%
Somewhat poor	35%
Very poor	13%
Moderately well	12%

probability areas included Ellabelle and Mascotte soils, accounting for 24.10 ha. This walkover survey did include areas of standing water, generally in the western most portion of the tract.

Survey tract **NRMU E8.3** includes a number of soils (Figure 15), with Mascotte soils representing the

Table 15.
Soil Types by Percentage in NRMU E8.3

Soil Type	Percentage
Mascotte fine sand	40%
Johnston and Bibb soils	16%
Pelham loamy sand	16%
Stilson loamy sand	12%
Leefield loamy sand	9%
Ellabelle loamy sand	4%
Fuquay loamy sand	1%
Dothan loamy sand	1%
Pits	1%

largest percentage (Table 15). In general, the soils representing the greatest percentage in NRMU E8.3 are sandy loams, loamy sands, and fine sands with water tables that range from the surface to 91.4 cm below the surface (Table 2).

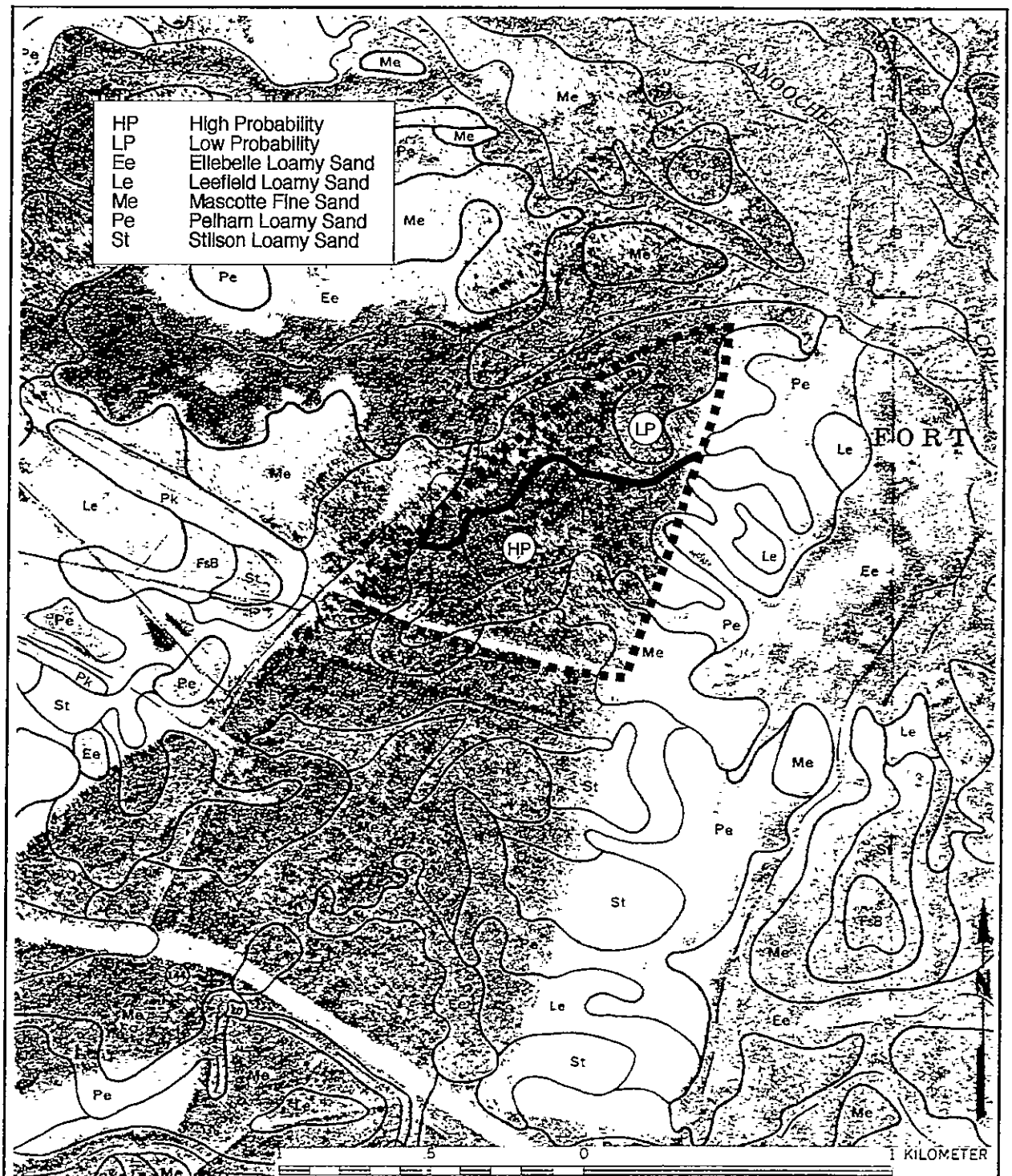

Figure 14. Soil types and probability areas in survey tract NRMU E6.3, Liberty County (adapted from Looper 1982).

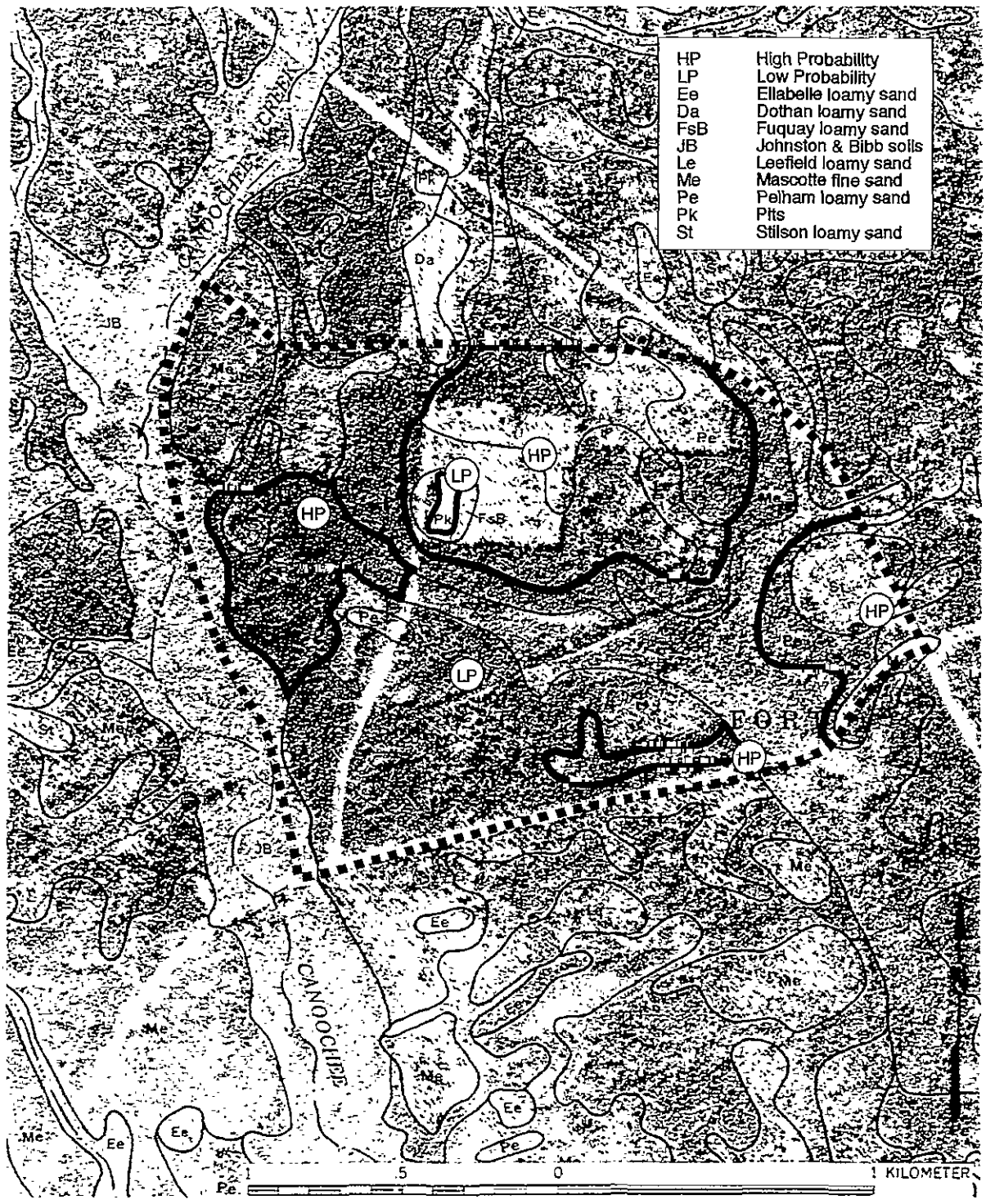

Figure 15. Soil types and probability areas in survey tract NRMU E8.3, Liberty County (adapted from Looper 1982).

More than half of the soils are poorly drained, with only 2% characterized as moderately well to well drained (Table 16). Fuquay, Leefield, Mascotte, Pelahm, and Stilson soils make up the high probability areas in NRMU E8.3, accounting for 124.24 ha. These soils range from poorly to well drained soils. The high probability areas in the northern and eastern portions of

Table 16.
Percentage of Drainage Characteristics in NRMU E8.3

Drainage Characteristics	Percentage
Poor	57%
Very poor	20%
Moderately well	12%
Somewhat poor	9%
Well	1%
Pits	1%

the tract (Figure 15) were on noticeably higher land than the soils in the rest of the survey tract. High probability soils in the western area of the tract were wet, though not as wet as low probability soils, with standing water occurring in some shovel tests at a level of 30 cm below the ground surface. Low probability soils included Ellabelle, Mascotte, Johnston and Bibb, and Pelham soils. Low probability soils located in the western portion of the tract, near Canoochee Creek, were frequently wet, with water appearing as high as 10 cm below ground surface. Other low probability swampy areas seemed to be uncommonly dry, suggested by the vegetation, water lines on trees and the scorched appearance of the ground surface.

Survey tract **NRMU F7.2** includes Leefield, Osier, Pelham, and Stilton soils (Figure 16). Pelham soils make up the largest percentage of soil in this tract (Table 17) and are characterized by loamy sands, sandy loams, and sandy clay loams (Table 2). The water table for Pelham soils occurs from 15.2 cm to 30.5 cm below the ground surface. The other soils in NRMU F7.2 have a range of water table depths.

Over 80% of the soils in NRMU F7.2 are poorly drained, with only 2% characterized as moderately well drained (Table 18). Because this area was designated a walkover survey tract due to the presence of unexploded ordnance, the subsurface condition of the soils cannot be addressed. However, transects in the eastern portion of the tract were entirely flooded, with water reaching waist-

Table 17.
Soil Types by Percentage in NRMU F7.2

Soil Type	Percentage
Pelham loamy sand	78%
Leefield loamy sand	16%
Osier soils	5%
Stilson loamy sand	1%

high in some cases. The entire survey tract was designated a high probability area. The areas adjacent to Canoochee Creek, which flows through the middle of the tract, were also flooded with water, although the water was generally only ankle-high. The majority of the flooded soils included Pelham, Leefield, and Osier soils, which commonly have water tables ranging from 15.2 cm to 76.2 cm below the surface.

Table 18.
Percentage of Drainage Characteristics in NRMU F7.2

Drainage Characteristics	Percentage
Poor	83%
Somewhat poor	16%
Moderately well	2%

Pelham and Leefield soils made up the greatest percentage of soils in survey tract **NRMU F17.3** (Table 19). These two soils are characterized by loamy sands, sandy loams, and sandy clay loams (Table 2). The water table for these soils occurs between 15.2 cm to 76.2 cm below surface.

Table 19.
Soil Types by Percentage in NRMU F17.3

Soil Type	Percentage
Pelham loamy sand	29%
Leefield loamy sand	28%
Stilson loamy sand	18%
Fuquay loamy sand	14%
Johnston and Bibb soils	5%
Mascotte fine sand	4%
Pits	2%

Thirty-three percent of the total soils in NRMU F17.3 are poorly drained, with 17% characterized as moderately well drained (Table 20). High probability

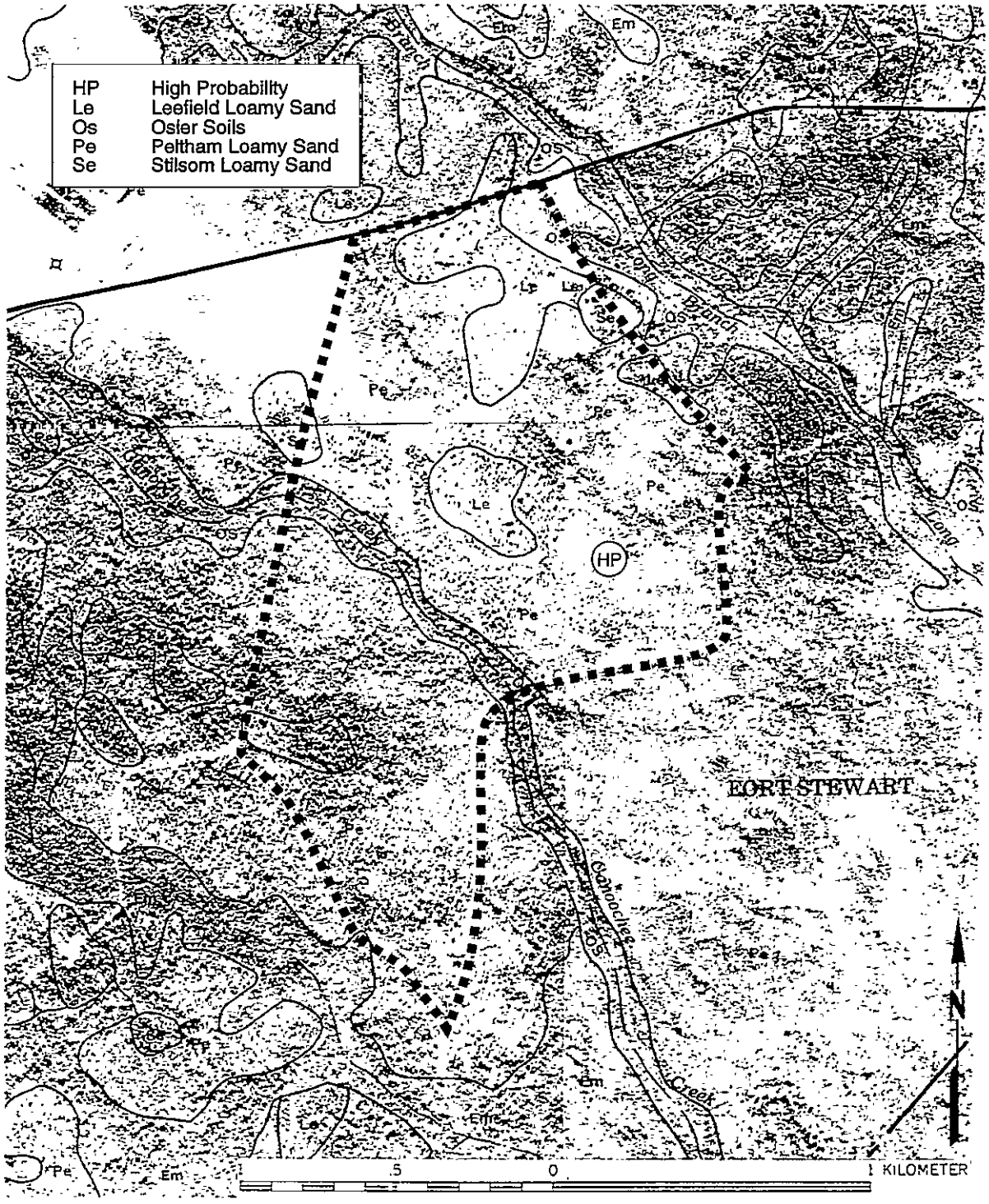

Figure 16. Soil types and probability areas in survey tract NRMU F7.2, Evans County (adapted from Paulk 1980).

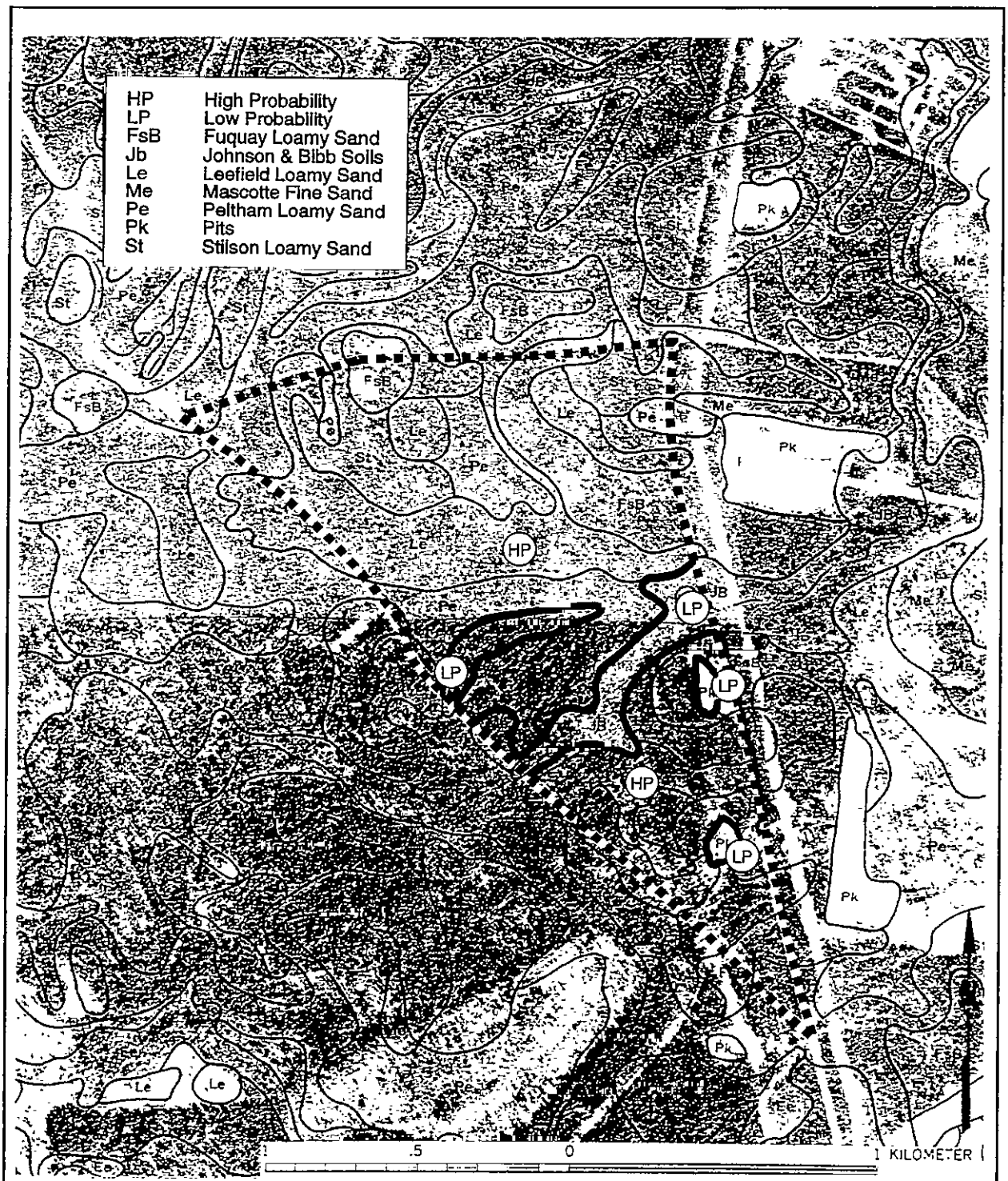

Figure 17. Soil types and probability areas in survey tract NRMU F17.3, Liberty County (adapted from Looper 1982).

Table 20.
Percentage of Drainage Characteristics in NRMU F17.3

Drainage Characteristics	Percentage
Poor	33%
Somewhat poor	28%
Moderately well	17%
Well	14%
Very poor	5%
Pits	2%

Pelham, and Stilson soils, accounting for 174.95 ha (Figure 17). Soils range form moderately well to poorly drained. There were instances of standing water in high probability areas in the southern portion of the survey tract, and shovel tests that revealed wet soils at about 30 cm below the ground surface. Low probability soils included Mascotte, Johnston and Bibb soils and pits, accounting for 21.76 ha. Standing water was present in much of the low probability area surrounding the drainage that runs through the middle of the survey tract.

Soils and Site Locations

According to the *Fort Stewart and Hunter Army Airfield Historic Preservation Plan*, survey areas are designated as very high probability, high probability, medium probability or low probability (Campbell et. al 1996:202). The criteria for probability designations can be found in the *Fort Stewart and Hunter Army Airfield Historic Preservation Plan* (Campbell et al. 1996:203). In general, the probability areas are based on the tract's proximity to rivers and streams, and the type of soil drainages in the tract.

Survey tracts in this project were divided into high and low probability areas, and appropriate field methodology was employed in these areas, as discussed in the preceding chapter. The use of high and low probability areas is especially well suited for work at Fort Stewart, which includes many soils of poor drainage. However, high and low probability areas were not always obvious in the field, due to the undifferentiated vegetation, topography, and soil drainage of high and low probability areas. In a few cases it was impractical to survey small strips of land as low probability because these very small areas were indistinguishable from the surrounding high probability areas. In addition, difficulty arose when attempting to determine the boundaries of high and low probability based on the soil maps which include curves and turns that are difficult to judge and translate into numbers of shovel tests in the field. In all instances, when there was a question concerning the boundaries of probability areas, methodologies for high probability areas were employed.

Predictive modeling for Fort Stewart suggests that sites will be located in certain high probability soils, many of which are somewhat poorly drained to well drained (Campbell et al. 1996:209). Table 21 lists all sites located, the associated soils of the sites, the soils' drainage, and the water table depth associated with the soils. Out of 43 total sites recorded during this survey, only five occurred in low probability areas of either very poorly or poorly drained soils (Table 21), supporting the model presented by Campbell et al. (1996:214-222). The water tables for the low probability sites occur either less than 30.5 cm or less than 45.7 cm below the surface.

No sites were found in soils with water tables occurring at the surface or less than 15.24 cm below the surface. This suggests that areas which are normally flooded, but dry during this survey, do not contain submerged sites that are being missed when survey is conducted during normal seasons when the area is at its normal water table. This conclusion has significant implications for future, cost-effective survey techniques.

Table 22 lists the number and percentages of sites found in soil types in all survey tracts. Soils with the highest percentage of sites are Pelham, Leefield, Stilson and Pooler series. These soils range from moderately well drained to poorly drained. As noted by Campbell et al. (1996:221), the two prehistoric sites (not isolated sites) recorded during this survey do not seem to be predicated by soil type, but by proximity to water, in this case, Taylors Creek. Likewise, the model for historic sites presented by Campbell et al. (1996:227-230) suggests that there is a tendency for historic sites to be located on high probability soils. As will be discussed in the following chapter, it is more likely that historic sites are located in proximity to roads, and transportation areas, such as railroad depots, rather than exclusively in association with specific soils.

Soil permeability may be a likely reason why sites are situated in certain locations and not others. Table 22 lists the percentages of sites found by drainage characteristic and the total percentage of drainage

Table 21.
Sites*, Soils, and Drainage in the survey tracts

Site Number	Type	Soil	Drainage	Probability	Water Table
		Survey Tract NRMU A9.1			
9LI524	Historic site	Pooler fine sandy loam	Poorly drained	Low	<30.48 cm
9LI525	Isolated historic site	Blanton sand	Moderately well drained	High	1.52-1.83 m
9LI526	Isolated historic site	Blanton sand	Moderately well drained	High	1.52-1.83m
		Survey Tract NRMU A12.1			
9LI517	Multicomponent site	Pooler fine sandy loam	Poorly drained	High/Low	<30.48 cm
9LI518	Historic site	Pooler fine sandy loam	Poorly drained	High/Low	<30 48 cm
9LI519	Isolated historic site	Ocilla loamy fine sand	Somewhat poorly drained	High	30.48-76 20 cm
		Survey Tract NRMU A12.2			
9LI259	Historic site	Albany loamy fine sand	Somewhat poorly drained	High	30.48-76.20 cm
9LI520	Historic site	Ocilla loamy fine sand	Somewhat poorly drained	High	30.48-76.20 cm
9LI521	Isolated historic site	Chipley loamy fine sand	Moderately well drained	High	60.96-91.44 cm
9LI522	Multicomponent site	Pelham loamy sand	Poorly drained	High	15.24-45.72 cm
9LI523	Historic site	Pooler fine sandy loam	Poorly drained	High/Low	<30.48 cm
9LI532	Historic cemetery	Pooler fine sandy loam	Poorly drained	High/Low	<30.48 cm
9LI533	Isolated historic site	Pooler fine sandy loam	Poorly drained	High/Low	<30.48 cm
9LI534	Historic site	Albany loamy fine sand	Somewhat poorly drained	High	30.48-76.20 cm
		Survey Tract NRMU B7.2			
9LI315	Historic site	Stilson loamy sand	Moderately well drained	High	76.21-91.44 cm
9LI318	Isolated historic site	Stilson loamy sand	Moderately well drained	High	76.21-91.44 cm
9LI375	Isolated multicomponent	Leefield loamy sand	Somewhat poorly drained	High	45.72-76.20 cm
9LI499	Historic site	Stilson loamy sand/	Moderately well drained	High	76 21-91 44 cm
		Fuquay loamy sand	Well drained	High	n/a
9LI507	Prehistoric site	Leefield loamy sand	Somewhat poorly drained	High	45.72-76.20 cm
9LI508	Isolated multicomponent	Stilson loamy sand	Moderately well drained	High	76.21-91.44 cm
9LI509	Prehistoric site	Osier and Bibb soils	Poorly drained	High	<30.48 cm
9LI514	Isolated historic site	Stilson loamy sand	Moderately well drained	High	76.21-91.44 cm
		Survey NRMU B7.3			
9LI515	Isolated prehistoric site	Johnston and Bibb soils	Very poorly drained	Low	<45.72 cm
9LI516	Isolated historic site	Mandarin fine sand	Somewhat poorly drained	High	46 cm-1.07 m
		Survey Tract NRMU E6.3			
9LI513	Isolated historic site	Leefield loamy sand	Somewhat poorly drained	High	45.72-76.20 cm
		Survey Tract NRMU E8.3			
9LI338	Isolated historic site	Stilson loamy sand	Moderately well drained	High	76 21-91.44 cm
9LI510	Historic site	Fuquay loamy sand	Well drained	High	n/a
9LI511	Prehistoric isolated site	Johnston and Bibb soils	Very poorly drained	Low	<45.72 cm
9LI512	Historic cemetery	Leefield loamy sand	Somewhat poorly drained	High	45.72-76.20 cm
9LI527	Historic site	Fuquay loamy sand	Well drained	High	n/a
9LI528	Isolated historic site	Leefield loamy sand	Somewhat poorly drained	High	45.72-76.20 cm
		Survey Tract NRMU F7.2			
9EV116	Historic site	Pelham loamy sand	Poorly drained	High	15.24-45.72 cm
9EV117	Historic site	Osier and Bibb soils	Poorly drained	High	15.24-45.72 cm
9EV118	Isolated historic site	Pelham loamy sand	Poorly drained	High	15.24-45.72 cm
9EV119	Historic site	Pelham loamy sand	Poorly drained	High	15.24-45.72 cm
9EV120	Historic site	Pelham loamy sand	Poorly drained	High	15.24-45.72 cm
9EV121	Historic site	Leefield loamy sand	Somewhat poorly drained	High	45.72-76 20 cm
9EV122	Historic site	Pelham loamy sand	Poorly drained	High	15.24-45.72 cm
9EV123	Isolated prehistoric site	Osier and Bibb soils	Poorly drained	High	15 24-45.72 cm
		Survey Tract NRMU F17.3			
9LI312	Historic site	Leefield loamy sand/	Somewhat poorly drained	High	45.72-76.20 cm
		Fuquay loamy sand	Well drained	High	n/a
9LI529	Historic cemetery	Pelahm loamy sand	Poorly drained	High	15.24-45.72 cm
9LI530	Isolated historic site	Stilson loamy sand	Moderately well drained	High	76.21-91.44 cm
9LI531	Isolated historic site	Pelham loamy sand	Poorly drained	High	15.24-45.72 cm

Multicomponent refers to sites that contain both historic and prehistoric artifacts.
*Sites 9LI452 and 9LI484 are not included in this table. Site 9LI452 is a railroad bed that crosses an entire survey tract, and 9LI484 is located in Taylors Creek.

Table 22.
Percentages of Sites by Soil Type

Soil Type	# of Sites*	Percentage
Pelham loamy sand	8	19%
Leefield loamy sand	7	16%
Stilson loamy sand	6	14%
Pooler fine sandy loam	6	14%
Fuquay loamy sand	4	9%
Osier and Bibb soils	3	8%
Albany loamy fine sand	2	4%
Blanton sand	2	4%
Johnston and Bibb soils	2	4%
Ocilla loamy fine sand	2	4%
Chipley	1	2%
Mandarin fine sand	1	2%

*The number of sites equals 44 rather than the actual 43 sites used in this calculation due to the presence of site 9LI312 on two soil types.

characteristics for all of the survey tracts. While it may seem that most sites are found on poorly to somewhat poorly drained soils, the percentage of soil drainage types in each survey tract, discussed previously, must be taken into account (Table 23).

The presence of sites on certain drainage types seems relative to the percentage of the drainage, with the exception of well drained soils. For example, 56% of all survey tracts consisted of poorly drained soils, the highest drainage characteristic. The largest percentage of sites was also found on poorly drained soils. Well drained soils, representing only 1% of the total survey tract soils, contain 9% of the total sites located, suggesting that a larger number of sites are found on well drained soils as opposed to soils that are characterized by poorly drained soils. Moderately well drained soils, accounting for 8% of total soils, also have a higher percentage of sites than very poorly drained soils, which account for 13% of all soils and have only 4% of the total sites found in all survey tracts.

Climate

The southeastern Atlantic coast of Georgia is usually hot and humid in the summer with a winter that is cool to occasionally bitter cold. Georgia's highest temperatures normally occur in July and, in the Fort Stewart area the summer average daily temperature is 80°F. The lowest temperature occurs in January and winter temperatures average 53° F. The average growing season in the Fort Stewart area ranges from about 260 to 270 days (Hodler and Schretter 1986:40).

Occasional tropical storms, coupled with the flow of moist air from the Gulf of Mexico over the warm land surface, make the late summer the season of greatest rainfall in southeastern Georgia; while November is typically the month of lowest rainfall for the project area (Clements 1989:53; Hodler and Schretter 1986:38). The total annual precipitation is 1.25 m. Of this, 60% usually falls from April through October, which includes the growing season for most crops (Looper 1982:2). During 1954, one of the driest years on record, the rainfall for the project area was only about 70 cm — about 55% of the normal rainfall. Campbell et al. (1996:13) suggest that floods are actually more common, typically occurring in the winter and spring. The flood-producing rains are usually caused with slow-moving low pressure centers and may be associated with tropical storms or prolonged thunder storm activity.

Table 23.
Percentages of Sites by Drainage Characteristic of Soils

Drainage	# Sites	%	Drainage %
Very poor	2	4%	13%
Poor	17	38%	56%
Somewhat poor	12	27%	21%
Moderately well	10	22%	8%
Well	4	9%	1%
Pits	n/a	n/a	1%

During the late Pleistocene and early Holocene periods temperatures were considerably cooler than they are today. Temperatures began to moderate and approach modern temperatures along the Southeast Atlantic Slope around 7,000 B.P. (Wright 1976:594). A more thorough discussion is provided below relating vegetational change to these climatic ranges.

Floristics and Paleoenvironment

The Coastal Plain in the vicinity of Fort Stewart is today dominated by longleaf-slash pines with oaks and yellow poplar being found as common associates (Hodler and Schretter 1986:52; Shantz and Zon 1936:5). Although forests of large, equal-age pines were noted by

explorers in the seventeenth century, this vegetation is largely the result of intentional action by humans. Described as a fire subclimax forest, these monospecific stands are maintained by periodic burning which exclude the young of most other arboreal species.

Küchler (1964) identifies the potential natural vegetation, that expected without the interference of humans, as a Southern Mixed Forest. These are tall forests of broadleaf deciduous and evergreen and needleleaf evergreen trees. The dominants are beech, sweet gum, southern magnolia, white oak, and laurel oak. Slash and loblolly pines are also dominants, although they would not be as prevalent as they are in today's fore subclimax setting. Other components include maples, hickories, dogwood, and palmetto (Küchler 1964:112). Along the major drainages Küchler identified Southern Floodplain Forests — dense, medium tall to tall forests of broadleaf deciduous and evergreen trees and shrubs and needleleaf deciduous trees such as tupelo, oak, bald cypress, along with maples, hickories, ash, sweet gum, oaks, and elm (Küchler 1964:113).

Today, suggestions of these potential natural forests are found only in more mesic, edaphically favorable and fire-protected areas (Campbell et al. 1996:14). In such areas, drainage, soil types, elevation, and slope are the major factors affecting vegetation and a range of different species, including live oaks, hickories, palmettoes, hollies, and bays will be found.

Today, all of the survey tracts studied are heavily managed. This includes, but is not limited to, the cutting of firebreaks and periodic burns. These areas are dominated by open pine forests with an understory vegetation which ranges from very dense in areas found along drainages to very sparse in others. Historic site locations quite often contain oaks and ornamental vegetation, whereas low swampy areas generally contain a dense undergrowth of scrub oak.

In the 1860s less than 30% of what would later become Liberty and Long counties (but known at that time as Liberty County) was improved for cultivation (Hilliard 1984:Map 44). By the 1940s only about a third of these two counties was cropped with most of the land being forested (Hodler and Schretter 1986:127). At the time Fort Stewart was acquired by the U.S. Army, Campbell et al. (1996:10) report that most of the plots were small to medium size woodlots. Today, about 20% of Liberty and Long counties is farmland, with about 13% actually under cultivation (Clements 1989:251, 255). Cotton and rice were historically produced on the bottomlands (Campbell et al. 1996:79-80). By the late antebellum there seems to have been a focused shift to small tracts of peas, sweet potatoes, and corn. Rice was largely abandoned by 1860 and cotton was little more than a subsidiary interest (Campbell et al. 1996:106-107). By the postbellum cotton and corn were still common, although potatoes, oats, cane, peaches, figs, grapes, and pecans were also being grown, at least in small quantities (Knight 1917:1256). Lumber and live stock were also growing industries. Today the principal agricultural activity for much of the area is ranching, while the principal crops are corn and soybeans, except in Tattnall County, where Vidalia onions are the most common crop. Logging remains a substantial economic activity (Clements 1989:251, 255).

Naval stores have played a major part in Georgia's Coastal Plain economy since the nineteenth century (Campbell et al. 1996:79-80). Obtained by heating the resin-filled heartwood of pine logs, pitch and tar were replaced as major exports by turpentine and rosin. These products are distilled from the raw gum exuded by living pine trees. Growing through the late antebellum and early postbellum, Georgia dominated U.S. gum production, accounting for about 50% by the 1890s. It lost considerable ground to adjacent Florida in the next four decades, but recovered its lead in the late 1930s and early 1940s. In 1970, Georgia contributed about 85% of the U.S. gum naval store production, although the significance of the gum market has declined dramatically in the twentieth century as the tall oil or sulfate production increased. Exacerbating the situation is a continuing severe labor shortage brought about by the low wages, the seasonal nature of the work, and its focus on hot and dirty manual labor (Hodler and Schretter 1986:148).

Pollen cores obtained from the Southeast Coastal Plain indicate a sequence of successional forest types from the Full Glacial through the Post Glacial periods (Watts 1971; Whitehead 1965). Before strong evidence of human population (pre-15,000 B.P.), cold-adapted vegetation predominated by spruce and jack pine was found in the Piedmont and Coastal Plain area. Other less common species included oak and ironwood. All of these species suggest a much colder and drier environment than found today (Watts 1980:326). Some have suggested that this climate was much like today's eastern Canadian boreal forests, dominated by pine and

spruce distributed in a mosaic pattern of stands within sedge-dominated prairies. Campbell et al. (1996:34), however, also present evidence suggesting that while the climate was colder, it may *not* have been drastic enough to support a full boreal forest.

The somewhat warmer and moister environment evidenced in the Late Glacial (15,000 to 10,000 B.P.) is associated with an increase in deciduous species. Northern hardwoods, such as oak, hickory, beech, birch, and elm began replacing the spruce and jack pine populations. This change corresponds with warmer summer temperatures and colder winter temperatures as well as an increase in precipitation. It is during this period that there is the first moderately well documented evidence for human occupation (Watts 1980; Sassaman et al. 1990). This period was a transitional period between the glacial Late Pleistocene and the essentially modern climatic conditions of the Holocene. The resulting mesic forest, with its relatively high percentages of beech and hickory, has no modern analog and was the result of the cool, moist conditions which characterized this transition.

During the Post Glacial (10,000 B.P. to present) oak and hickory dominated the region. Other species such as walnut, hemlock, and hazelnut disappeared from the pollen record. By 9,500 B.P. hickory and ironwood species declined and were replaced by sweetgum and blackgum. These changes prior to 7,000 B.P. suggest periods of rapid warming and increased moisture (Watts 1980; Watts and Stuiver 1980). It has been observed that these very rapid environmental changes would have created a dynamic ecosystem requiring constant adaptive adjustments on the part of early groups (Cable and Mueller 1980:7).

In the Georgia Coastal Plain southern pine communities displaced the oak-dominated forests between 8,000 and 6,000 B.P. which led to a decrease in mast production (Sassaman et al. 1990:22; Campbell et al. 1996:35-36). This vegetational change probably had an effect on prehistoric land use during certain times of the year, since nut masts were probably more isolated and concentrated rather than widespread. Coupled with these vegetational changes was a cooler, moister climate (Watts 1971 and 1980).

Campbell et al. (1996:35-39) suggest a possible cause and effect relationship between climate changes beginning about 8,300 B.P. and the rise of pine forests. They note that as the climate shifted from less rainfall to a seasonably variable moisture regime there was also an increase in lightning-producing spring storms. These storms, they suggest, created the right conditions for frequent natural fires which would encourage, and maintain the presence of longleaf pine. They note that even today the mesic climatic regime "continues to provide an ideal environment for the longleaf pine and the Southern Evergreen Forest" (Campbell et al. 1996:38).

From about 5,000 B.P. and continuing to the present, Whitehead (1973) found pine increasing slightly, although oak appeared to remain dominant in natural forest stands. The precontact environment of the Piedmont Southeastern United States was termed "temperate deciduous forest" by Shelford (1974:56-88) with oak and hickory interspersed with pine, maple, ash, and other deciduous species (for a graphic representation see Shantz and Zon 1936). Küchler (1964) further supports this reconstruction.

Campbell et al. (1996:38-39) also suggest that other vegetational "adjustments" have included the filling in of Carolina bays with peat to form extensive pocosin wetlands and the expansion of coastal swamps under the influence of rising sea levels.

By the historic period the lower coastal plain was dominated by loblolly pine. The loblolly is known as the "bull pine" because of its prodigious size and remarkable ability to invade dry, flat terrain and even the hilly uplands. The pines formed vast, open forests interrupted only by the occasional inland swamp and its accompanying hardwoods.

This area of the Coastal Plain, the soil, and the vegetation frequently attracted the attention of observant commentators. In the early eighteenth century John Wesley mentioned that:

> the Land is of four Sorts, Pine-barren, Oakland, Swamp and Marsh. The Pine-Land is of far the greatest Extent, especially near the Sea-Coasts. The Soil of this, is a dry, whitish Sand, producing Shrubs of several sorts, and between them a spiry, coarse Grass which Cattle do not love to feed. But here and there is a little of a better kind, especially in the Savannahs (so they call the low, watry Meadows,

> which are usually intermixt with Pine-Lands) (Reese 1974:232-233).

Throughout Georgia's history, these "pine-barrens" were known as land of less value than other, more fertile tracts. Even as early as 1740, William Stephens provided an account which observed, "the American dialect distinguishes land into pine, oak and hickory, swamp, savannah, and marsh" (Frech and Swindler 1973:79). He commented that where oak and hickory trees grew "the soil is in general of a strong nature, and very well esteemed for planting, being found by experience to produce the best crops of Indian Corn, and most sorts of grain" (Frech and Swindler 1973:79). The swamp soils, with their "black moulds" were best for rice. The savannahs and marshes, while producing no trees, did contain large numbers of "canes," which were reported to be excellent winter forage for cattle. Only for the pine lands, "of a sandy surface," could Stephens find nothing encouraging to say.

English occupation of the countryside, including occupation of Georgia's pine barrens, gradually changed its appearance. The pines which dominated the topography, for example, began to give way to scrubby hardwoods by the early 1800s (Silver 1990:187). It is almost certain that the process was largely completed by the mid-1800s. Yet there were other, equally momentous changes. Turkeys and other wild fowl were less common, while the flocks of Carolina parakeets and passenger pigeons approached extinction. Buffaloes were already gone from the neighboring Piedmont. In the lowland swamps the beavers, otters, and minks were close to gone, as were other occasional visitors such as bears, wolves, panthers, and bobcats.

The countryside was becoming increasingly dominated by small farms. The new ecology, created by clearing and farming grains, encouraged flocks of quail. While the minks and otters gave way to hunting pressures, they were quickly replaced by the opossum. By the nineteenth century the most common animals were the cattle, hogs, and sheep brought by the Coastal Plain settlers. Silver notes that, "fewer canebrakes and overgrazed mixed hardwood forests attest to the forage habits of these Old World Beasts" (Silver 1990:187-188). The changes were dramatic, gradually giving rise to the lower Coastal Plain we know today.

PREHISTORIC AND HISTORIC OVERVIEW

Previous Research

Relatively few in-depth studies have been conducted at Fort Stewart. The majority of those readily available have been contracts, let by the United States Army, in an effort to determine the extent of cultural resources located on the base.

The earliest study of any intensity was that conducted in 1980 and 1981 by Professional Analysts, Inc. (Miller et al. 1983). The goal of the study was to conduct a sample survey in order to produce a predictive model for the entire facility (Campbell et al. 1996:174). The sample universe was established as all fire breaks less than 3-years old. These were stratified by soil association and a pedestrian survey was conducted. Only the actual fire break was examined and no shovel tests were excavated. Campbell et al. (1996:174) report that the total coverage was 370 km. Assuming that the fire breaks were an average of 3 m in width, this would account for about 111 ha. This represents a 0.1% survey of the entire base.

In addition to the stratified sample survey, a judgmental survey was conducted of base food plots and an effort was apparently made to relocate a number of previously identified sites on the base (Campbell et al. 1996:176). In all, 29 previously recorded archaeological sites were revisited.

The survey identified a total of 85 sites, including 50 prehistoric sites, 17 historic sites, and 18 prehistoric and historic sites. In all, 145 components were represented. This survey found a density of about 1 site per ha. The site types included lithic scatters (many without diagnostic remains), villages, a burial mound, and riverine camps. Historic sites dated primarily to the late nineteenth century. Historic research also identified, as potential sites, 24 historic properties.

This study forms the nucleus of Fort Stewart's predictive model. Miller et al. (1983 quoted in Campbell et al. 1996:203) identified four probability zones:

> Very high probability — locations which include well-drained bluffs along the Ogeechee and Canoochee Rivers.
>
> High probability — areas where well-drained soils, such as Craven, Lakeland, Tifton, Pooler, Ocilla, Fuquay, and Stilson, occur. Also included are areas in proximity to high order streams.
>
> Medium probability — areas which include all of the soil types that are not excessively drained or very poorly drained, representing the vast majority of the base. These areas essentially represent portions of Fort Stewart for which the survey coverage was inadequate to allow any reasonable prediction of probability.
>
> Low probability — areas where the soils, such as Rutledge, Mandarin, Osier, Johnston, Ellabelle, and Bibb, are either excessively drained or very poorly drained.

Campbell et al. (1996:211-228) provide a detailed analysis of this model. Most importantly, they provide a detailed listing of soils, assigning a probability ranking. While the single minded reliance by Miller et al. (1983) on soil and drainage to predict archaeological probability can be criticized, it does offer an initial focus for future efforts at Fort Stewart. This current study, in fact, is at least partially based on the early predictive work by Miller and his colleagues. In the **Conclusions** to this study some further evaluation of its applicability is provided.

Other investigations in the area have included a 1988 survey conducted in the Brigade Maneuver area of Fort Stewart by Carolina Archaeological Services (Jackson et al. 1988). Although this tract included 1,507 ha it is of limited comparability since it involved no shovel testing — all of the survey was pedestrian

(Jackson et al. 1988:22; Campbell et al. 1996:181).

During this survey of the Brigade Maneuver area, forty-three archaeological sites were reported, including Early Archaic and Early Woodland remains, and historic sites dating primarily from the late nineteenth and early twentieth centuries (Campbell et al. 1996:181).

Four site types were identified during the Carolina Archaeological Services survey (Campbell et al. 1996:191):

> Site Type 1- Prehistoric campsites or lithic scatters — contain diagnostic or non-diagnostic lithic debris and/or ceramic sherds indicative of aboriginal subsistence activities.
>
> Site Type 2 - Late nineteenth and early twentieth century farmsteads and activity loci — contain diagnostic historic material, often in association with brick, features and/or aligned trees, or ornamental vegetation (i.e., orchards, groves, gardens).
>
> Site Type 3 - Historic Cemeteries — contain marked or unmarked human interments.
>
> Site Type 4 - Multicomponent sites (historic farmsteads/activity locus and prehistoric activity locus) — contain debris associated with historic farmsteads or activity loci, plus prehistoric activities.

An Early Archaic and Late Woodland geographical overlap was found within the Carolina Archaeological Services study (Jackson et al. 1988:46).

The study at Brigade Maneuver area in general (see Campbell et al. 1996:212-213), supports the probability assessments established by Miller et al. (1983). Jackson et al. (1988), however, note that site density may be higher than initially suggested for Fort Stewart. Although only 1 site per 24.6 ha was recorded, few of the high probability soils were encountered in their survey (Campbell et al. 1996:181).

In 1995-96 Chicora Foundation conducted a 522 ha shovel test survey of the JAECK Drop Zone, during which relatively few sites were located (Trinkley et al. 1996). These included two prehistoric sites and two historic sites.

A second area containing 241 ha, known as the Taylors Creek tract, was surveyed at the same time by Chicora Foundation. A total of three prehistoric sites and the historic town of Taylors Creek were identified during the survey.

Prehistoric sites recorded during the 1995-96 Chicora Foundation survey contained artifacts spanning the Early Archaic to Mississippian periods. The three historic sites, including the Taylor's Creek town, contained artifacts from the late eighteenth century to the twentieth century.

In 1996-97 Chicora Foundation conducted an 809 ha shovel test survey (survey tract "A") in portions of training areas E-16 and E-20 (Trinkley et al. 1997). Seventeen sites and 14 isolated occurrences were identified. These included three prehistoric sites, 14 historic sites, one of which was the small community of Shady Grove, and one multicomponent prehistoric/historic site. The prehistoric sites contained artifacts that date to the Mississippian period.

A second area ("B") containing 804 ha in portions of training areas E-14 and E-15, was shovel tested at the same time as the above survey. Four sites and eight isolated occurrences were identified. Although four historic sites were identified in this survey tract, no prehistoric sites were identified.

The historic sites recorded during the 1996-97 Chicora Foundation survey, date from the mid-nineteenth century to the twentieth century.

The two Chicora Foundation studies, in general (see Trinkley et al. 1996:113-123 and Trinkley et al 1997:139-142), did not confirm or deny the probability assessments established by Miller et al. (1983). Trinkley et al. (1996), however, note that the site density is slightly lower in the JAECK Drop Zone survey tract (0.76 sites per km^2) than that suggested for Fort Stewart (1.1 sites per km^2), whereas the Taylors Creek survey tract exhibits a higher site density (2.5 sites per km^2). Assessment of the data recovered during the 1996-1997 survey found a site density in survey tract "A" (portions of NRMU E-16 and E-20) of 3.83 sites per km^2 and a site density in

survey tract "B" (portions of NRMU E-14 and E-15) of 1.49 sites per km².

Although the Campbell et al. (1996) predictive model essentially relies on soil drainage, the Chicora (1996) study determined that site probabilities are best based on a broad range of factors. The location of prehistoric sites may be dependent on additional factors, such as distance to water. Historic sites locations seem to be determined by commercial, industrial, and broad agricultural needs rather than on strictly defined soil, water, or topography criteria.

Prehistoric Overview

Overviews for Georgia's prehistory, while of differing lengths and complexity, are available in virtually every compliance report prepared for Fort Stewart. Of special interest is the Historic Preservation Plan for Fort Stewart which provides a lengthy overview of the prehistoric cultural sequence (Campbell et al. 1996:45-69). In addition, there are some "classic" sources well worth attention, such as Williams' edited works of Antonio J. Waring, Jr. (Williams 1968).

These can be supplemented with a broad range of theses and dissertations, such as Lewis Larson's examination of coastal subsistence technology (Larson 1969), Chester DePratter's discussion of Southeastern chiefdoms (DePratter 1983), or Morgan Crook's examination of Mississippian community organization along the coast (Crook 1978).

Also extremely helpful, perhaps even essential, are a handful of recent local synthetic statements, such as that offered by Anderson and Sassaman (1996) for the Early Archaic, Sassaman and Anderson (1994) for the Middle and Late Archaic, and Anderson et al. (1992) for the Paleoindian. Only a few of the many available sources are included in this study, but these should be adequate to give the reader a "feel" for the area and help establish a context for the various sites identified in the current study. For those desiring a more general synthesis, perhaps the most readable and well balanced is that offered by Judith Bense (1994), *Archaeology of the Southeastern United States: Paleoindian to World War I*. Figure 18 offers a generalized view of Georgia's cultural periods.

Paleoindian Period

The Paleoindian Period, most commonly dated from about 12,000 to 10,000 B.P., although it has been suggested by some archaeologists that the beginning date for the Paleoindian Period be pushed to as early as 14,000 B.P. (Oliver 1981), Lithic tools associated with the Paleoindian Period include basally thinned, side-notched projectile points, fluted, lanceolate projectile points, side scrapers, end scrapers, and drills (Coe 1964; Michie 1977; Williams 1968). Non-fluted points such as the Hardaway Side-Notched and Palmer Corner-Notched types, usually accepted as Early Archaic, are occasionally seen as representatives of the terminal phase of the Paleoindian Period (Figure 19). This view, verbally suggested by Coe for a number of years, has considerable technological appeal.[1] For the North Carolina area Oliver suggests a continuity from the Hardaway Blade through the Hardaway-Dalton to the Hardaway Side-Notched, eventually to the Palmer Side-Notched (Oliver 1985:199-200). While convincingly argued, this approach is not universally accepted and there appears to be no such continuum in Georgia.

The Paleoindian occupation, while widespread, does not appear to have been intensive. Artifacts are most frequently found along major river drainages, which Michie interprets to support the concept of an economy "oriented toward the exploitation of now extinct mega-fauna" (Michie 1977:124). Survey data for Paleoindian tools, most notably fluted points, is rather sparse for Georgia (Ledbetter et al. 1992). In spite of this, the distribution offered by Anderson (1992:Figure 5.1) reveals a rather general, and widespread, occurrence throughout the region. The recognition of Paleoindian sites in Georgia is hindered not only by a lack of research, but also by the small size of typical sites (often the Paleoindian component may be recognized by a single tool) and the heavy amount of reworking and curation seen in Paleoindian tools from Georgia (Ledbetter et al. 1992:261).

[1] While never discussed by Coe at length, he did observe that many of the Hardaway points, especially from the lowest contexts, had facial fluting or thinning which, "in cases where the side-notches or basal portions were missing, . . . could be mistaken for fluted points of the Paleo-Indian period" (Coe 1964:64). While not an especially strong statement, it does reveal the formation of the concept. Further insight is offered by Ward's (1983:63) all too brief comments on the more recent investigations at the Hardaway site (see also Daniel 1992).

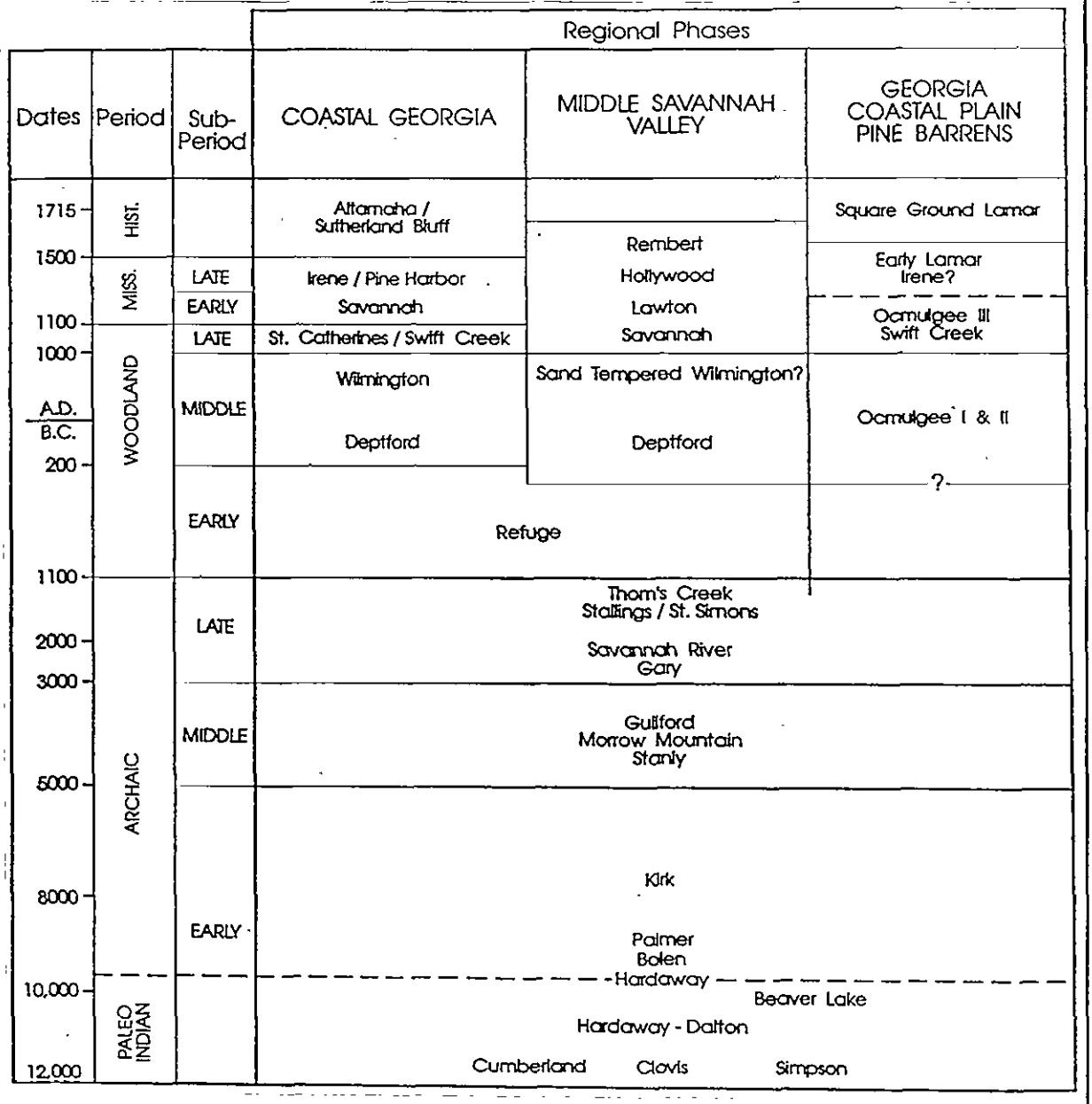

Figure 18. Cultural periods for the Georgia coastal region (adapted from Braley 1990; DePratter 1979:Table 30; Sassaman et al., 1990:Table 1).

lanceolates such as Clovis, Dalton, Suwannee, and perhaps the Hardaway (Anderson 1990:7-9).During the later portion of the Paleoindian, many researchers (see Snow 1977:3-4, Figure 1 for example) borrow from Florida and suggest that these more classic large lanceolate points were replaced by smaller points with concave bases, such as the Sante Fe, and Beaver Lake (Bullen 1975:45-47; Milanich and Fairbanks 1980:45). In addition, points such as the Bolen Plain and Bolen Beveled (Bullen 1975:44, 49-53; Milanich and Fairbanks 1980:45) are thought to be intermediate between the Late Paleoindian and Early Archaic in much the same way as the Palmer of South and North Carolina is regarded.

Unfortunately, relatively little is known about Paleoindian subsistence strategies, settlement systems, or social organization (see, however, Anderson 1992 for an excellent overview and synthesis of what is known). Generally, archaeologists agree that the Paleoindian groups were at a band level of society (see Service 1966), were nomadic, and were both hunters and foragers. While population density, based on isolated finds, is thought to have been low, Walthall suggests that toward the end of the period, "there was an increase in population density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

According to Campbell et al. (1996:47-49) no Paleoindian sites have been identified on Fort Stewart through professional research (excepting the recovery of Dalton projectile points from 9LI276 and 9LG29, and a Hardaway-Dalton from 9BN36), although at least one local collector has reported early points from the general area. This near absence is attributed to the lack of readily available raw materials. Should Paleoindian materials be encountered, Georgia has developed a rather detailed preservation plan which outlines a broad range of appropriate research questions (Anderson et al. 1990).

The prevalence of Paleoindian occupation is dramatically increased, however, if Bolen and Palmer points are included. Campbell et al. (1996:52) note that several sites have produced these materials, which they attribute to the Early Archaic. Moreover, both Taylor and Big Sandy points are found in this area of the Coastal Plain. Snow comments that "large choppers, unifacial blades, and scrapers" are found in the Coastal Plain, but can be attributed to the Paleoindian Period only on the basis of their "patination; some appear chalky, and display a general likeness to Paleo-Indian material of known antiquity" (Snow 1977:3).

Archaic Period

The Archaic Period, which dates from 10,000 to 3,000 B.P.[2], does not form a sharp break with the Paleoindian Period, but is a slow transition characterized by a modern climate and an increase in the diversity of material culture. Associated with this is a reliance on a broad spectrum of small mammals, although the white tailed deer was likely the most commonly exploited animal. Archaic period assemblages, exemplified by corner-notched and broad-stemmed projectile points, are fairly common, perhaps because the swamps and drainages offered especially attractive ecotones.

The review of available survey data by Campbell et al. (1996:52-54) suggest that there was a noticeable population increase from the Paleoindian to the Late Archaic (where at least 14 components were isolated). The increase in components over time certainly corresponds with generalized findings of other researchers, and may be tentatively associated with a greater emphasis on foraging. Campbell et al. (1996:52) note, however, that considerably fewer Early and Middle Archaic remains are found than seemingly should be present, based on comparable surveys elsewhere in the region. They suggest this may be the result of the sites being "buried in deep subsurface contexts" (Campbell et al. 1996:52). Unfortunately, they provide no substantive reasoning, geomorphological studies, or rationale for this assessment. Their comparative data consists of only one other survey, the Ebenezer Watershed (Fish 1976). Nor

[2] The terminal point for the Archaic is no clearer than that for the Paleoindian and many researchers suggest a terminal date of 4,000 B.P. rather than 3,000 B.P. There is also the question of whether ceramics, such as the fiber-tempered Stallings ware, will be included as Archaic, or will be included with the Woodland. Oliver, for example, argues that the inclusion of ceramics with Late Archaic attributes "complicates and confuses classification and interpretation needlessly" (Oliver 1981:20). He comments that according to the original definition of the Archaic, it "represents a preceramic horizon" and that "the presence of ceramics provides a convenient marker for separation of the Archaic and Woodland periods (Oliver 1981:21). Others would counter that such an approach ignores cultural continuity and forces an artificial, and perhaps unrealistic, separation. Sassaman and Anderson (1994:38-44), for example, include Stallings and Thom's Creek wares in their discussion of "Late Archaic Pottery."

do they explore other explanations for the disparity between Archaic settlement in the Fort Stewart area and in this one other study area.

Diagnostic Early Archaic artifacts include the Kirk Corner Notched point. As previously discussed, Palmer and Bolen points may be included with either the Paleoindian or Archaic period, depending on theoretical perspective. As the climate became hotter and drier than the previous Paleoindian period, resulting in vegetational changes, it also affected settlement patterning as evidenced by a long-term Kirk phase midden deposit at the Hardaway site (Coe 1964:60). This is believed to have been the result of a change in subsistence strategies. Other hallmarks of the Early Archaic are often considered to include a continued reliance on high quality lithic raw materials, a highly curated tool kit, high geographic mobility, and periodic aggregation of band-sized groups (see Anderson and Hanson 1988; Daniel 1992).

Settlements during the Early Archaic suggest the presence of a few very large, and apparently intensively occupied, sites which can best be considered base camps. Hardaway might be one such site. In addition, there were numerous small sites which produce only a few artifacts — these are the "network of tracks" mentioned by Ward (1983:65). The base camps produce a wide range of artifact types and raw materials which has suggested to many researchers long-term, perhaps seasonal or multi-seasonal, occupation. In contrast, the smaller sites may be thought of as special purpose or foraging sites.

There are several intensively occupied Early Archaic sites which are of special importance in our understanding of this period, including the Lewis East and Pen Point sites in South Carolina (for a review, see Sassaman and Anderson 1994:84-85) and the Taylor Hill site in Georgia (Elliott and Doyon 1981).

Middle Archaic (8,000 to 6,000 B.P.) diagnostic artifacts include Morrow Mountain, Guilford, Halifax and Stanly projectile points. Ledbetter remarks that a possible regional variant includes the side-notched or corner-notched points similar to Halifax, as well as an elongated point known as the Brier Creek Lanceloate (Ledbetter 1995:12; Michie 1968; Sassaman and Anderson 1994:27). Also observed during this period is the MALA (Middle Archaic-Late Archaic) point, which are typically made from heat-treated chert and considered by some to be a regional variant of the Benton type (see Sassaman 1985; see also Sassaman and Anderson 1994:27-29 for a more updated discussion).

Much of our best information on the Middle Archaic comes from sites investigated west of the Appalachian Mountains, such as the work by Jeff Chapman and his students in the Little Tennessee River Valley (for a general overview see Chapman 1977, 1985a, 1985b). Closer to Georgia, there is Ledbetter's (1995:12) work at Pen Point on the Savannah River, as well as work at Fort Gordon (9CB81, see Braley and Price 1991), and 9RI178 (Elliott et al. 1994).

There is good evidence that Middle Archaic lithic technologies changed dramatically. End scrapers, at times associated with Paleoindian traditions, are discontinued, raw materials tend to reflect the greater use of locally available materials, and mortars are initially introduced. Curated tools are less common. Associated with these technological changes there seem to also be some significant cultural modifications. Prepared burials begin to more commonly occur and storage pits are identified. The work at Middle Archaic river valley sites, with their evidence of a diverse floral and faunal subsistence base, seems to stand in stark contrast to Caldwell's Middle Archaic "Old Quartz Industry" of Georgia and the Carolinas, where axes, choppers, and ground and polished stone tools are very rare.

Coastal Plain settlement models for the Middle Archaic have traditionally focused on the near absence of diagnostic material. It has been suggested that the "Pine Barrens" were unattractive or could not support dense occupation. This view has been espoused by Larson (1980). As Sassaman and Anderson (1994:149) suggest, it may be that Middle Archaic groups avoided the coastal plain not because the area was impoverished, but rather because the available resources were patchy and this "patchiness" resulted in high "hidden" costs such as constant movement, increasing specialization, and the need to store larger quantities of food.

Sassaman and Anderson (1994:150-152) also briefly review the evidence supporting a focus on swamp floodplains during the Middle Archaic, noting that while such environmental settings can be difficult to identify, they do seem to be associated with large, multicomponent sites. In addition, they illustrate the mounting evidence to support seasonal rounds or seasonal transhumance between the coast and the interior (e.g., Milanich 1971).

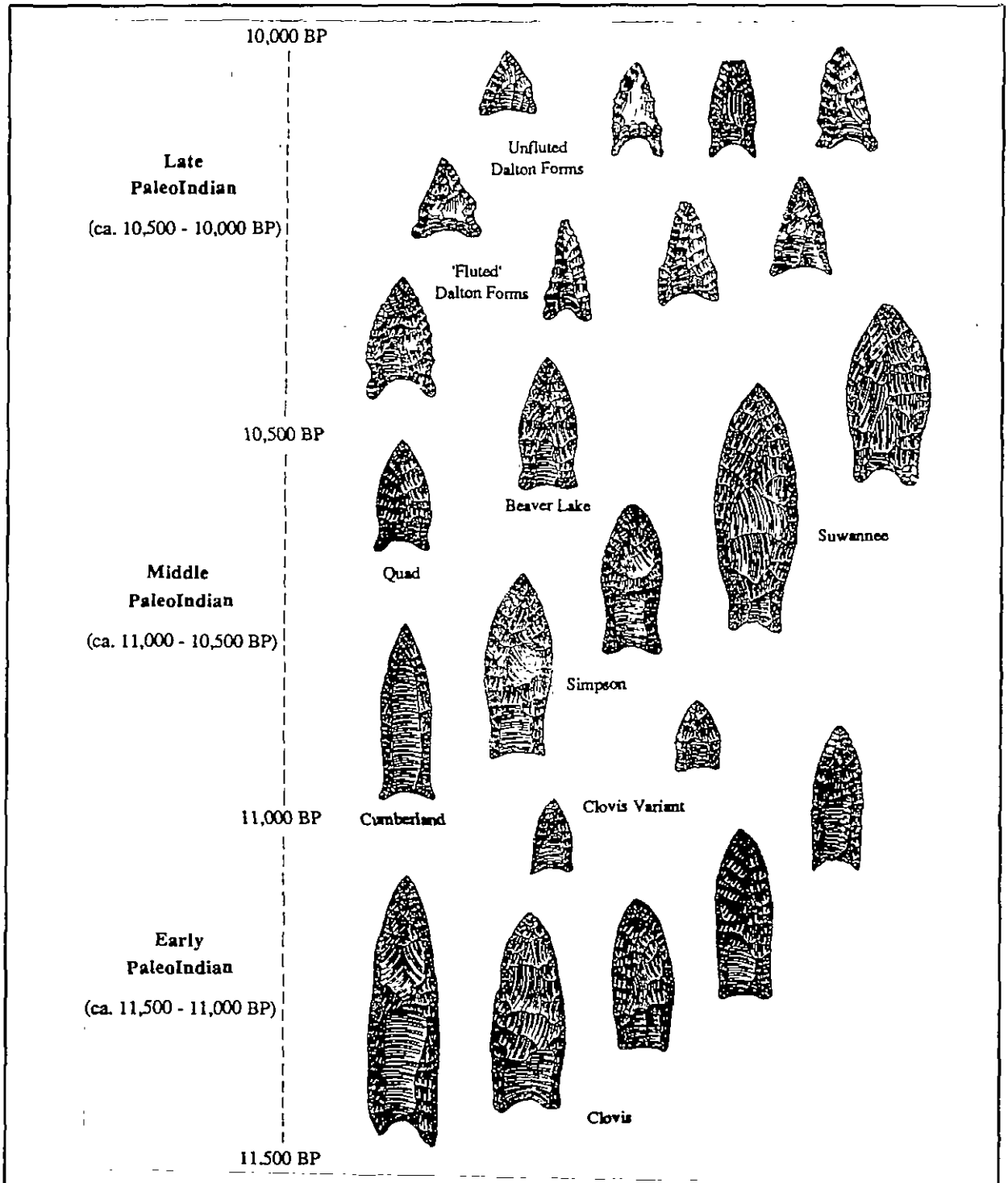

Figure 19. Diagnostic Paleoindian projectile points and suggested chronology for Georgia and the Carolinas (adapted from Anderson 1992:Figure 3.1).

The Late Archaic, usually dated from 6,000 to 3,000 or 4,000 B.P., is characterized by the appearance of large, square stemmed Savannah River projectile points (Coe 1964). In addition, research in the Georgia Coastal Plain suggests the presence of Gary Points, having a triangular blade, squared shoulders, a contracting stem, and a rounded or occasionally pointed base (see Smith 1978 for examples from Laurens County, Georgia). These Late Archaic people continued to intensively exploit the uplands although the available Fort Stewart data for this period reveal that the sites are spread over a variety of environmental zones with no obvious patterning (Campbell et al. 1996:52-53).

One of the more debated issues of the Late Archaic is the typology of the Savannah River Stemmed and its various diminutive forms. Oliver, refining Coe's (1964) original Savannah River Stemmed type, developed a complete sequence of stemmed points that decrease uniformly in size through time (Oliver 1981, 1985). Specifically, he sees the progression from Savannah River Stemmed to Small Savannah River Stemmed to Gypsy Stemmed to Swannanoa from about 5000 B.P. to about 1,500 B.P. He also notes that the latter two forms are associated with Woodland pottery. This reconstruction is still debated with a number of archaeologists expressing concern with what they see as typological overlap and ambiguity. They point to a dearth of radiocarbon dates and good excavation contexts at the same time they express concern with the application of this typology outside the North Carolina Piedmont where it was originally developed (see, for a synopsis, Sassaman and Anderson 1990:158-162, 1994:35).

In addition to the presence of Savannah River points, the Late Archaic also witnessed the introduction of steatite vessels (see Sassaman 1993), polished and pecked stone artifacts, and grinding stones. Some also include the introduction of fiber-tempered pottery about 4000 B.P. in the Late Archaic (for a discussion see Sassaman and Anderson 1994:38-44; Sassaman 1993:16-41). This innovation is of special importance along the Georgia and South Carolina coasts.

Coupled with the presence of fiber-tempered Stallings or St. Simons pottery (Griffin 1943; DePratter 1991:159-162) are also a broad range of worked bone and shell items, such as engraved bone pins, whelk columella beads, and antler projectiles. Coupled with these artifacts are shell rings — dough-nut shaped heaps of shells ranging from only a few feet in height to over 20 feet (see Trinkley 1985 for a general overview). There is evidence that these shell rings represent gradually formed habitation sites with occupation taking place on the rings. The sites appear to reflect permanent, year-round occupation suggesting that the coastal St. Simons and co-evil Thom's Creek (found primarily northeast of the Savannah River in South Carolina) groups were able to schedule their subsistence activities to allow stable settlements (Trinkley 1980).

There is evidence that during the Late Archaic the climate began to approximate modern climatic conditions. Rainfall increased resulting in a more lush vegetation pattern. The pollen record indicates an increase in pine which reduced the oak-hickory nut masts which previously were so widespread. This change probably affected settlement patterning since nut masts were now more isolated and concentrated. From research in the Savannah River valley near Aiken, South Carolina, Sassaman has found considerable diversity in Late Archaic site types with sites occurring in virtually every upland environmental zone. He suggests that this more complex settlement pattern evolved from an increasingly complex socio-economic system. While it is unlikely that this model can be simply transferred to the Coastal Plain of Georgia without an extensive review of site data and micro-environmental data, it does demonstrate one approach to understanding the transition from Archaic to Woodland.

Woodland Period

Sassaman (1993:55) recalls the cautions of Joseph Caldwell, who found "the regional landscape of the Early Woodland ceramic traditions" a "fascinating array of local developments and diverse extralocal influences." As a consequence, the Early Woodland becomes quickly confused and difficult to interpret.

As previously discussed, there are those who see the Woodland beginning with the introduction of pottery. Under this scenario the Early Woodland may begin as early as 4,500 B.P. and continued to about 2,300 B.P. Diagnostics would include the small variety of the Late Archaic Savannah River Stemmed point (Oliver 1985) and pottery of the Stallings, St. Simons, and (to a lesser extent) Thoms Creek series (Griffin 1943; Trinkley 1976; DePratter 1991:159-162). The fiber-tempered Stallings and St. Simons wares and the sandy paste Thoms Creek wares are decorated using punctations, jab-and-drag, and incised designs (Trinkley 1976).

Others would have the Woodland beginning about 3,000 B.P. with the introduction of the Refuge wares, also characterized by sandy paste, but often having only a plain or dentate-stamped surface (DePratter 1976, 1991:163-167; Waring 1968). There is evidence that the punctated and dentate surface decorations are gradually replaced by plain and simple stamped treatments. Sassaman et al. (1990:191) report a distribution similar to the earlier fiber-tempered and Thom's Creek wares, and suggest that the Refuge wares evolved directly from these earlier antecedents.

On the Georgia coast, the Refuge has been subdivided into three subphases, with plain and dentate stamping found during the entire period. Toward the end, linear and check stamping is introduced, sometimes with grog or clay tempering. Typically these sites are found on ridges or other high, sandy ground, although DePratter also notes that many sites have been inundated by the rising sea level and are situated in the marsh (DePratter 1976:6-8).

Oemler ceramics, which admittedly are poorly understood (DePratter 1979:177), are likely a Refuge-Deptford transition. DePratter describes the pottery's check stamping as consisting:

> of small, rhomboid or diamond checks, carefully applied to the vessel surface without overstamping. The [Oemler] complicated stamping is somewhat unusual, consisting of small, carefully executed line-filled triangles, nested diamonds, and other motifs (DePratter 1979:117).

He observes that the largest sample comes from the Oemler site and that other researchers have occasionally called the pottery Deptford Geometric Stamped. The pottery is so uncommon that it may well represent only a variety of either Refuge or Deptford.

In spite of the relative lack of detailed investigations at Early Woodland sites, it seems likely that the subsistence economy was based primarily on deer hunting and fishing, with supplemental inclusions of small mammals, birds, reptiles, and shellfish. This is based on an impression that there was a continuation of a generalized Late Archaic pattern, which may or may not be appropriate.

Fort Stewart has apparently produced no Refuge sites and Campbell et al. (1996:60) doubt that such sites will exist in the Coastal Plain unless possibly associated with earlier fiber-tempered sites. They note, however, that the Georgia State Site files report the presence of at least four Refuge/Oemler components at sites on Fort Stewart (Campbell et al. 1996:57). Consequently, it is difficult to assess the potential for Refuge sites at Fort Stewart.

Somewhat more information is available for the Middle Woodland, typically given the range of about 2,500 B.P. to about 1,200 B.P. The most characteristic pottery of this time period is Deptford, although both Swift Creek and Wilmington are likely late additions. Regardless, the Middle Woodland is best understood in the context of Deptford, which has been carefully described by DePratter (1979:118-119, 123-127), who suggests two divisions with check stamping and cord marking gradually being supplemented by complicated stamping. The introduction of clay or grog tempered Wilmington wares follows on the heels of the Deptford phase.

We do not, however, mean to imply that the origin of the Middle Woodland is well understood. In fact, Sassaman takes some pains to emphasize that the transition from Refuge to Deptford is not well understood:

> the Refuge-Deptford problem is the result of numerous regional processes that converge in the Savannah River region between 3000 and 2000 B.P. The sociopolitical entities that existed on the coast and in the interior during the fourth millennium dissolved after about 2400 B.P., resulting in the dispersal of small populations across the region. . . Pottery designs changed from highly individualistic punctation and incision to the (seemingly) anonymous use of dowels for stamping. . . the use of a carved paddle for simple stamping should mark the "blending" of Refuge and Deptford culture, or, more accurately, reflect the subsumption of Refuge culture by the expanding Deptford complex.

> To complicate matters, the tradition of cord-wrapped paddles makes its way into the South Carolina area sometime after 2500 B.P. (Sassaman 1993:118-119).

The work by Milanich (1971) and Smith (1972), coupled with the considerable additional site-specific research (see, for example, DePratter 1991; Sassaman 1993:110-125; Thomas and Larsen 1979) provides an exceptional background for this particular phase. Milanich's (1971) interpretation of a coastal-estuarine settlement model with interior occupation limited to short-term extractive activities, while still useful, has been modified through the discovery of a number of interior base camps. In fact, there seems to be evidence for a number of interior seasonal or perhaps even permanent base camps, although there is as yet no convincing evidence of horticulture. Anderson (1985:48) provides a brief overview of some very significant concerns. He notes that Milanich's interpretation that the interior river valleys were used by small, residentially mobile foraging groups which dispersed from large coastal villages is clearly not correct. In fact, just the opposite appears more likely, with coastal use and settlement being seasonal (Anderson 1985:48-49).

DePratter (1979:119, 128-131; 1991) takes the position that Wilmington pottery post-dates Deptford, ushering in the use of grog or clay as a tempering material in the late Middle Woodland. The check stamping and complicated stamped motifs found in the Deptford continue, except with clay tempering for a short time. Called Walthour, these wares are described by DePratter (1991:174-176), but they apparently existed for only a short period of time before being completely replaced by cord marking (DePratter 1979:119).

Wilmington phase sites are rather poorly understood in the Georgia Coastal Plain. No only has there been little effort to develop settlement models incorporating the Wilmington, there is very little technological research on the pottery itself. The potential importance of the Wilmington phase is perhaps evidenced by Snow's (1977) survey of the Ocmulgee Big Bend area, where large quantities of what he called "Ocmulgee I" pottery was found. He specifically states that this ware "is not Wilmington" (Snow 1977:42), noting that while there is some clay tempering (certainly not the abundant grog tempering of classic Wilmington), much of the pottery has a sandy paste (Snow 1977:36). Perhaps the most distinctive characteristic of this pottery (which is associated with at least one burial mound) is a heavy folded rim. Folded rims seem to gradually drop out, while the paste becomes increasingly more gritty in succeeding Ocmulgee II and III types.

Curiously, coupled with the coastal Wilmington material is what the W.P.A. researchers called Chatham County Cord Marked (DePratter 1991:179-180), a grit-tempered (rather than clay-tempered) heavy cord marked pottery. DePratter remarks this is possibly related to the "sand tempered" pottery that Stoltman (1974:63), further up the Savannah River, called "Wilmington."

It seems that Georgia, just like South Carolina and North Carolina, is struggling to comprehend, and deal with, a broad array of Middle Woodland cord marked pottery.

Although Deptford pottery is well recognized, the associated lithic technology is not. For Florida, Milanich and Fairbanks (1980:75-76) mention only that "medium-sized triangular" points are present. Yadkin-like triangular points are reported to be found with Wilmington sites (Anonymous 1940). Snow (1977:Figure 47) reports a broad range of small triangular points with his Ocmulgee I, II, and III cord marked pottery. The bulk of these appear to resemble more traditional Yadkin and Caraway points (Coe 1964:30-32, 49).

The Middle Woodland cannot be fully appreciated without reference to Hopewellian influences, whether the presence of coastal sand burial mounds and their evidence of status differences (e.g., Thomas and Larsen 1979) or the presence of occasional exchange goods. Sassaman et al. note that while there is a lack of "obvious" Hopewellian influence in the Savannah area, there is nevertheless evidence of a "higher order of sociopolitical complexity" (Sassaman et al. 1990:14). They note that the broad similarities in ceramic design evidence the movement of ideas, or "interprovincial integration," not seen in the Early Woodland. The presence of coastal shells found at interior sites demonstrates the movement of goods.

At Fort Stewart the Middle Woodland period is better represented than the Early Woodland. Ten sites have produced Deptford remains. No sites have been reported with Wilmington pottery, although it is not clear from the summary by Campbell et al. (1996:56-57) if any

of the Deptford sites produced sandy paste "Wilmington" pottery. Campbell et al. (1996) fail to discuss lithic resources, so it is not possible to ascertain if Middle Woodland lithic scatters have been encountered.

In some respects the Late Woodland (1,200 B.P. to 400 B.P.) may be characterized as a continuation of previous Middle Woodland cultural assemblages. While outside the Carolinas and Georgia there were major cultural changes, such as the continued development and elaboration of agriculture, the coastal South Carolina and Georgia groups settled into a lifeway not appreciably different from that observed for the previous 500-700 years. From the vantage point of Middle Savannah Valley Sassaman and his colleagues note that, "the Late Woodland is difficult to delineate typologically from its antecedent or from the subsequent Mississippian period" (Sassaman et al. 1990:14). This situation would remain unchanged until the development of the South Appalachian Mississippian complex (see Ferguson 1971). Anderson (1994:366-368) provides a basic review of the Late Woodland and Mississippian ceramic sequence at the mouth of the Savannah River. This review is particularly useful since it also compares and contrasts these developments to those in the middle and upper reaches of the Savannah (Anderson 1994:368-377).

Milanich (1971:148-149) and Caldwell (1970:91) saw the St. Catherines pottery, which seemingly characterizes the Late Woodland, as an important aspect in the gradual progression from Deptford to Wilmington to St. Catherines to Savannah. Perhaps the most succinct summary of the Georgia Late Woodland St. Catherines phase is that offered by DePratter and Howard (1980:16-17). Significantly, they note that most of the Georgia data comes from burial mound excavations, "because only limited village [and presumably shell midden] excavations have been conducted" (DePratter and Howard 1980:16). Even with burials there is a limited range of artifact types — shell beads, worked whelk shell bowls or drinking cups, bone pins, and triangular projectile points. Not only is little known about village life, nothing is known concerning residential structures and there is no good evidence of agricultural crops. Once again, the Late Woodland is presented as little more than an extension of the previous Middle Woodland lifeways.

DePratter (1979:119) provides a generalized introduction to the St. Catherines phase, noting its original definition by Caldwell (1971) and remarking that the ceramics are:

> characterized by finer clay tempering than that of preceding Wilmington types and by the increased care with which the ceramics were finished. The lumpy contorted surface of Wilmington types was replaced by carefully smoothed and often burnished interiors and exteriors (DePratter 1979:119).

DePratter also notes that the temper in the St. Catherines pottery consists of "crushed sherd or crushed low-fired clay fragments" (DePratter 1979:131). One of the few studies of prehistoric temper which involved detailed chemical and petrographic analyses included a sample of six St. Catherines sherds (Donahue et al. n.d.) The study found that the trend toward decreasing grain size of the aplastic component, begun in the Middle Woodland, continues into the Late Woodland. In contrast, the grog inclusions are coarse, ranging from about 2 to 3 mm, and they contain quartz grains (perhaps reflecting the temper of the crushed sherds).

More recent investigation of St. Catherines pottery in South Carolina found that while there is considerable variability in both size and frequency of temper, there is no compelling evidence that sherds were being crushed and used as temper. The most likely explanation for the observed similarity of both paste and temper is that the temper represents dried lumps of clay which have been incorporated back into the clay during the forming of vessels. On the other hand, the same study also found that there appear to be distinct chemical differences between the paste and temper. This suggests that the dried clay used as tempering was perhaps "left-over" from earlier potting episodes (Trinkley and Adams 1994:58-60).

Although the conventional wisdom is that the St. Catherines phase drew to a close around A.D. 1150, there is mounting evidence that the phase may extend into the thirteenth or fourteenth century A.D. (see Trinkley and Adams 1994:108-110, 114-115). There may be a blurring of Middle and Late Woodland lifeways well into later periods. The resulting cultural conservativism may help explain the presence of relatively few large Late Woodland villages and the apparent absence of corn agriculture until very late along the coast.

On the coast, Hopewellian influences may be more obvious than originally thought, if the multitude of sand burial mounds being investigated by the American Museum of Natural History are as early as reported. For example, the investigations at South End Mound II on St. Catherines Island suggest the earliest burial, placed in a pit about A.D. 1000, was associated with a copper sheet, had copper earspools, and included a diabase-like pendant (Larsen and Thomas 1986:25).

Moving away from the coast and into the inner Coastal Plain there is considerably less data. It is difficult, for example, to determine how far inland St. Catherines wares are reported, or if they exist at all. Once again relying on Snow's examination of the Ocmulgee Big Bend area, there is no evidence of St. Catherines pottery. Instead, it seems that the cord marked Ocmulgee wares fill the gap. Snow even mentions that his Ocmulgee III pottery, which is found with small triangular points, shows "some traits suggestive of closer ties with coastal Savannah II Cordmarked ceramics" (Snow 1977:43), suggesting that the Ocmulgee II wares may be Late Woodland. This may help explain why no St. Catherines sites have been found at Fort Stewart (Campbell et al. 1996:60), although clearly the lack of detailed surveys cannot be ignored.

Better known is the Swift Creek Phase, often viewed as either late Middle Woodland or Late Woodland. Swift Creek materials extend from the Gulf of Florida, where the phase was first identified (Willey 1949:378-383) into the coastal plain and piedmont of Alabama, Georgia, and South Carolina. Diagnostic artifacts include pottery with intricate, well-executed, curvilinear complicated stamped motifs. Also present are occasional suggestions of Hopewell ritual, especially among the burials. Sites include semi-permanent villages, some with burial mounds and occasionally small platform-like mounds, as well as small camps (Jefferies 1994; Keller et al. 1962; see also Sears 1956:53-54 and Sassaman et al. 1990:205-206 for regional overviews). Although there are few appropriate local studies, Snow does illustrate a number of early and late Swift Creek sherds from the Ocmulgee Big Bend area (Snow 1977:Figure 6a, 7a, 7b). This suggests that Swift Creek phase sites may be found in the Fort Stewart area.

South Appalachian Mississippian

As Schnell and Wright (1993:2) observe, "Mississippian" means different things to different people — even to its earliest researchers. To Willey (1966) it meant a particular group of traits. To Griffin (1985) it meant a complex social and technological interaction sphere. To Smith (1986) it was defined as an adaptive strategy. The meaning is further distorted, or at least affected, when the issue is viewed from a strict temporal or chronological orientation, such as this presentation (since to us, the period covers the period from about A.D. 900 to A.D. 1500).

The Mississippian is viewed rather basically by Campbell et al. (1996:61-62). They focus on a simple coastal chronology based almost entirely on the results of excavations at Irene (Caldwell and McCann 1941) and the resulting synthesis by DePratter (1979:Table 30; 1991:183-193). In this scenario the Savannah Phase, consisting of three subphases, is followed by the Irene, broken into two subphases. While following essentially the same sequences, Anderson (1994:366-368) provides considerably more detail.

The Savannah, characterized by cord marking, is seen as developing from earlier cultures. Present are flat-topped temple mounds, although these are seen by some researchers to be less common in the Altamaha region. While the settlement system is very similar to that of the Late Woodland, there are also nucleated settlements found near estuaries and along freshwater rivers further inland. Although agriculture is seen by many as almost essential, there is no good evidence for corn or other domesticated crops.

Savannah II is distinguished by the introduction of check stamping and Savannah III is defined by the presence of complicated stamping. The Savannah III Complicated Stamped pottery is primarily curvilinear, often of concentric circles or oval motifs. Sassaman et al. (1990:207) suggest that the current temporal ranges are likely too restrictive for these subphases and suggest instead broader period of perhaps A.D. 1100 to 1200 for Savannah II and perhaps A.D. 1200 to 1300 for Savannah III.

The Savannah Phase, according to Campbell et al. (1996:64), is the best represented of any period at Fort Stewart, with 35 sites producing Savannah pottery. They also note that not only are the sites more numerous, but the collections from the sites are larger, "suggesting that the Fort Stewart/Hunter Army Airfield area was a place more heavily occupied by Savannah populations than the earlier groups discussed above (Campbell et al.

1996:64). Most important among the Savannah sites appears to be the Lewis Mound (9BN39) and associated habitation area.

The Savannah phase gives way to what is often called the Irene Phase, probably beginning about A.D. 1300. The Irene I Phase is identified by the appearance of Irene Complicated Stamped pottery using the filfot cross and line block motifs. Not only are these motifs different from the earlier Savannah Complicated Stamped designs, but the Irene ware is characterized by grit inclusions and a coarse texture, compared to the Savannah's sandy inclusions and fine to medium-grained paste.

Also present in Irene collections are a range of rim decorations, including nodes, rosettes, and fillet appliques. Although incising is found in very low quantities during this early period, the succeeding Irene II phase is characterized by bold incising. The mouth of the Savannah River, however, was likely abandoned by the end of the Irene I Phase since little incising is found in this area. Anderson (1994:290-294) provides a detailed discussion of the collapse and abandonment of the Irene site, focusing on the dramatic changes and their meaning in a broader socio-political context.

Larson (1955) sought to distinguish his central coastal Pine Harbor incised material from the Irene wares of the northern coast. Braley (1990:98) suggests that the Pine Harbor material is both geographically and temporally distinct from Irene. He also suggests that the presence of the Pine Harbor Phase on the middle coast may help explain the apparent abandonment of the Savannah area, suggesting that the coastal groups shifted southward in order to make themselves more accessible to the interior Oconee chiefdoms (Braley 1990:99).

The situation, however, become considerably more muddled when the view is shifted inland — to the Pine Barrens in the vicinity of Fort Stewart, for example. Schnell and Wright explain that "almost nothing can be found in the literature" (Schnell and Wright 1993:41).

Using data from several Ocmulgee Big Bend sites, they note that there is a small collection of cord marked pottery, sometimes incorporated in an assemblage of plain and roughened wares, which dates from perhaps A.D. 800 to A.D. 1400 — falling within the temporal limits of the Mississippian. They note that Crook, who defined a Middle Ocmulgee Phase dating from A.D. 200 to about 900 and a Late Ocmulgee Phase from about A.D. 900 to 1600, distinguishes the two by increasing frequencies of triangular points and cord marked pottery. They also note that Crook suggests these occupations are associated with "conservative" cultural adaptations — an argument similar to that advanced for the late occurrence of St. Catherines wares along the South Carolina coast.

Snow, also exploring the Ocmulgee and Satilla river drainages, defines what he calls the Square Ground Lamar ceramic assemblage which apparently is coeval with late Irene (Snow 1990). Prior to this, the area is apparently dominated by the cord marked Ocmulgee III pottery. The Square Ground wares have 10 to 12 incised lines around the rim and below a stamp consisting of a central dot with four lines radiating out. Each of the resulting four quadrants is usually filled with chevrons (Snow 1990:Figure 5). He suggests that the "Square Ground Lamar pottery may equate with [the] Hitchiti people" of the lower Ocmulgee (Snow 1990:87).

The simple importance of these discussions is that there is far too little information presently available to allow any clear or certain understanding of what may be present in Fort Stewart area. Consequently, while Campbell et al. (1996:68) note that only four Irene sites have been found at Fort Stewart, it seems premature to argue that Lamar influences are rare, or that the Pine Barrens were deserted, or even sparsely occupied.

Protohistoric and Historic Contact

The Protohistoric ceramic assemblages along the immediate coast are typically identified as Altamaha (DePratter 1979), King George (Caldwell 1943), San Marcos (Smith 1948), and Sunderland Bluff (Larson 1978). The period is often dated from about A.D. 1550 to 1700, although Green (1991:106) argues that minimally it should be extended to 1715 in order to include the Yemassee-produced pottery of South Carolina and perhaps even as late as 1763 to coincide with Smith's (1948) St. Augustine period.

Regardless of precise dating, the ware is thought to include complicated stamping (including rectilinear and curvilinear motifs), check stamping, incising, plain, burnished plain, and a red filmed ware. Green suggests a continuum from Irene to Altamaha. Vessel forms include jars, bowls, plates, and pitchers. Some include strap and loop handles as well as foot rings, clearly revealing a strong European influence. The San Marcos pottery is

associated with limestone tempering, while the Altamaha and King George wares exhibit fine grit or sand.

Snow (1990:92-93) reports a dramatic decrease in the number of Altamaha sites compared to the preceding Square Ground sites in the Pine Barrens of the Ocmulgee Big Bend area. He also notes that in addition to Altamaha ceramics, there are also examples of "Miller ceramics from the Apalachee region of northwest Florida," "a smoothed-over check stamped ware, similar to Leon Check Stamped from mission sites in north Florida" and even "Ocmulgee Check Stamped known from the Macon Plateau site." Also present are "European trade items such as glass beads and copper" (Snow 1990:93). All are representative of European contact and suggest that there was considerable movement late in the history of the region. From the historic period, Snow reports the presence of both Ocmulgee Fields, Chattahoochee Brushed, Mission Red Filmed, and Leon-Jefferson Complicated Stamped pottery — all presumably associated with Creek sites (Snow 1990:93). Unfortunately, little more than the presence of these various wares is known about the historic or contact period sites in the area.

Historic Overview

The Native American population of southeastern North America first encountered Europeans during the 1539-1542 Spanish expeditions of Hernando de Soto. It was shortly after that, in 1566, that the Spaniard Pedro Menendez de Aviles, founder of St. Augustine, met with the Guale Indians on St. Catherines Island and established a small outpost and mission on the island (Coleman 1960:1; see also Jones 1978). Georgia's coast began to export grain and citrus fruits and by the early 1600s, missions were well established in fertile south and central Georgia (Hodler and Schretter 1986:70; see also Thomas 1987 and Larsen 1990).

By 1663 the ownership of lands within the confines of Georgia would become the center of great debates, dialogues, and eventually armed combat between Spanish and English interests. In granting the Carolina colony, Charles II had established that Spanish-held St. Augustine would constitute the southern boundary of the colony. With the presence of Spanish presidios and intensified English trading with Native American populations going on in the lands between Charles Towne and St. Augustine, tensions mounted between the two European powers.

The Origins of Georgia

The settlement of the Georgia colony is attributed to a perceived need by the English Crown to establish a military buffer zone between Spanish lands to the north of the Altamaha River and the English settlement of Charles Towne along the Atlantic coast of present day South Carolina (Coleman 1960:2). There was, as well, a strong Carolinian interest in tapping Georgia's potential for the deer skin trade and the use of Native Americans in military alliances against the other European powers. By effectively placing these lands under one sovereign, i.e., England, a number of these problems between England and Spain would be resolved.

The charter for the Georgia colony was granted in July of 1732, and by November James Oglethorpe set sail from England with the first shipload of colonists (Coleman 1960:5; DePratter and Howard 1980:42). South Carolina had relinquished territory to create Georgia and the new colony's original western boundary was the "South Seas," or the Pacific Ocean. By 1763, the boundary became the Mississippi River and, in 1802, Georgia ceded to the United States what would become Mississippi and Alabama and assumed its present form (Hodler and Schretter 1986:71).

The original settlers, numbering from 114 to 125 souls, established a settlement 29 km from the coast along the Savannah River on Yamacraw Bluff on February 12, 1733 (Coleman 1960:5; DePratter and Howard 1980:42; Hvidt et al. 1980:35).

Although Oglethorpe was appointed as representative for the colony's Trustees, he actually held no legislative or authoritarian powers over the colonists. Yet, he attempted to establish the Georgia Colony in a more philanthropic manner than its neighboring colony of Carolina to the north (Coleman 1960:8). Oglethorpe's philanthropic views may have been in direct response to problems encountered by the Carolina Proprietors. The trade in deer skins and the use of Native Americans as slaves during the early colonial period had caused personal and political problems for South Carolina's elite rulers (Barr 1996). Oglethorpe hoped to eliminate this and problems associated with the ownership of African American slaves within the Georgia colony.

While South Carolina became quickly dominated by large plantations, primarily indigo and rice, which operated under the forced labor of thousands of

African Americans, Oglethorpe envisioned a "kinder and gentler" colony of small land owners growing a broad range of crops. He foresaw land granted in small parcels and both slavery and rum were outlawed in 1736 (DePratter and Howard 1980:43).

Unfortunately Georgia was unable to retain its vision as a colony of sober men living off their own labor and rewards contributed through the working of small farms. Changes within the colony's structure were already evident when, in 1743, Oglethorpe was replaced by the Board of Trustees for the colony with William Stephens. As early as 1740 maximum land holdings were increased to 2000 acres, allowing the formation of small plantations (DePratter and Howard 1980:44). By 1750 the ban on the importation of slaves was dropped. Elite land owners and investors from South Carolina began to purchase lands along the Savannah River (Rowland 1987), and the timbre of Georgia society began to change. By 1750 African Americans constituted one third of Georgia's 3,000 residents (Coleman 1960:11).

In 1752 the Royal trusteeship charter expired and Georgia became a crown colony. In 1758 the Georgia Assembly established a governmental framework as part of the official church act. The province was divided into eight parishes (W.P.A. Writers' Program 1990:39. The tract which is today Fort Stewart lay primarily in the parishes of St. Johns and St. Phillips, with some western portions falling into St. Andrews Parish (Campbell et al. 1995:73).

The 1740s and 1750s were a period of growth in Georgia. Under the influence of her neighbor to the north large plantations began to dot the landscape. The introduction of upland and intertidal rice agriculture, the advent of indigo production, and the naval stores industry, brought on by world wide military and economic events (Barr 1996; Coclanis 1989; Weir 1983), would rapidly move Georgia into the mainstream of southern plantation agronomic production. Prior to the grant for the Georgia colony bounties were offered by England's parliament to encourage the growth of indigo and the production of naval stores. In 1766 the Georgia assembly, in an effort to infuse the naval stores industry, passed legislation which specified standards and volumes for the industry (Thomas 1975:2). This would enable Georgia to compete with world markets. Eventually Georgia evolved into a significant colony in its own right.

By 1776, Georgia retained very little of its pre-colonial concepts and contained a population of 40,000 to 50,000 people. Approximately half of that number were African American slaves (Coleman 1960:13; DePratter and Howard 1980:44).

Liberty County was established in 1777. At that time it included a part of present-day Bryan and Long counties, as well as all of McIntosh County. This area was settled early during the proprietary period, most notably by South Carolinians. Puritans from the abandoned town of Dorchester, South Carolina established the river port of Sunbury for the growth and export of rice, indigo, cotton, and lumber (Looper 1982:2, Groover 1987:33-34).

Economic factors had also come into play concerning the inland agricultural development of the colony. The inland areas of the state were considered better suited for the cultivation of upland cotton as opposed to rice, indigo, and sea island cotton, which were the staple crops grown along the coast. The relative position of Liberty County in the flat pine lands of Georgia allowed the area to rapidly diversify its agricultural base. Initially, the milling of lumber and the naval stores industry were important economic commodities (Groover 1987:33-34).

According to Herndon, "in the last two decades before the Revolution Georgia exported over 21,000,000 feet of lumber, 10,000,000 staves, and 36,000,000 shingles" to England (Herndon 1968:427). As well, both inland and intertidal rice, indigo, and long and short staple cotton were early crops. With the invention of the cotton gin by Eli Whitney in Savannah in 1793 new impetus was given to the commercial growth and export of upland cotton.

Yet, it was principally because of the early diversification of Liberty County's agricultural base that the naval stores industry remained in its infancy. The relationship between the naval stores industry and the production of other agricultural commodities is best explained by Hernden (1968) who states that:

> [a]n examination of the manner of producing turpentine, tar, and pitch will indicate the relationship between the production of naval stores, the expansion of the rice and indigo plantation, large and small, and the lumbering industry. Of the three

products that constituted the naval stores industry turpentine was of least interest as Colonial Georgia exported less than one-seventh as much turpentine as tar and pitch. Turpentine is a sap of the pine tree obtained by making incisions, or boxes, at the base of the trunk of the tree. These boxes were usually made in January and February and the ground at the foot of the tree was cleared of leaves, brush, and undergrowth . . . Around the middle of March the sap began to distill, circulation commenced and increased as the weather became warmer, the sap boxes had to be emptied five or six times or more per season and the upper edge of the boxes chipped each week to keep the sap running. When the chill of the frost severely checked the circulation the operation was discontinued and the remainder of the year was spent in preparatory labor for the following season. The production of turpentine was a year round job rather than merely a wintertime activity and since a tree produced turpentine for several years this activity did not in itself aid in the clearing of land; consequently the turpentine industry never grew past the embryo stage.

The manufacture of tar and pitch were wintertime activities, provided a supplementary income, and aided in the "improving" or clearing of land. . . . To procure the tar from the wood a kiln was prepared in the following manner: the wood was cut into pieces two are three feet long and about three inches thick and stacked on a raised concave earthen mound, the center of which was connected to a ditch or hole on the outside by a conduit; the pile of wood was covered with a layer of pine leaves and earth and a fire started at the top of the kiln. The fire was allowed to penetrate to the bottom with a slow and gradual combustion, which forced the tar from the wood causing it to run down to the bottom of the kiln and out into the ditch or hole. The kiln was watched day and night while burning to keep the fire from breaking out and consuming the wood without producing tar. The average yield was one barrel of tar to one cord of wood. Pitch was made from tar by heating it in furnaces or large kettles . . . (Hernden 1968:428-430).

Table 24.
Naval Stores Exported from Georgia (1755-1775)

Yr	Turpentine (bbls)	Pitch (bbls)	Tar (bbls
1755	n/a	n/a	45
1756	n/a	n/a	n/a
1757	n/a	n/a	129
1758	n/a	n/a	n/a
1759	n/a	83	35
1760	n/a	n/a	425
1761	160	n/a	235
1762	n/a	n/a	246
1763	8	23	175
1764	19	n/a	359
1765	n/a	n/a	486
1766	82	506	723
1767	88	627	387
1768	202	496	167
1769	68	492	138
1770	103	80	105
1771	45	193	102
1772	40	364	298
1773	n/a	n/a	n/a
1774	24	40	132
1775	44	84	217
Total	877	2,988	4,404

Source: Hernden 1968:431.

As seen in Table 24, the naval stores industry never became a truly viable industry during the Colonial Period. Between 1755 and 1775 Georgia exported less than 1,000 barrels of turpentine, approximately 3,000 barrels of pitch, and a little over 4,400 barrels of tar.

It was during the post-Revolutionary War period that we see considerable evolution in the establishment of Georgia's counties. As Campbell and her colleagues observe, poor transportation networks and the increased need for governmental services lead to the creation of most new counties. Bryan County was created in 1793 and Tattnall was created in 1801 (Campbell et al.

1995:98).

The Revolutionary War

Within the southern colonies the War for American Independence was similar to that of the American Civil War. Quite often family loyalties were divided between by class and family (Coleman 1960:17). Other than the capture of major population centers such as Charles Town, Savannah, and Augusta by the British, much of the war was a series of small, local engagements fought between loyalist troops and their patriot counterparts (Coakley 1989; DePratter and Howard 1980:44-45).

For most of 1779 the British held Savannah and the surrounding ground (Figure 20). In early fall of 1779 American and French troops made an abortive attempt to take Savannah. Among the 750 French and American casualties was Count Casimir Pulaski, for whom Fort Pulaski was named. It was not until July of 1782 that the British abandoned Savannah, ending British occupation of Georgia (Coulter 1960:146-147; DePratter and Howard 1980:45). Other nearby skirmishes include the 1776 Battle of the Rice Boats at Tybee Island and the 1778 Battle of Bulltown Swamp at Midway.

Although Oglethorpe had established a number of defensive communities west of Savannah, such as Fort Argyle on the Ogeechee River, most of these settlements

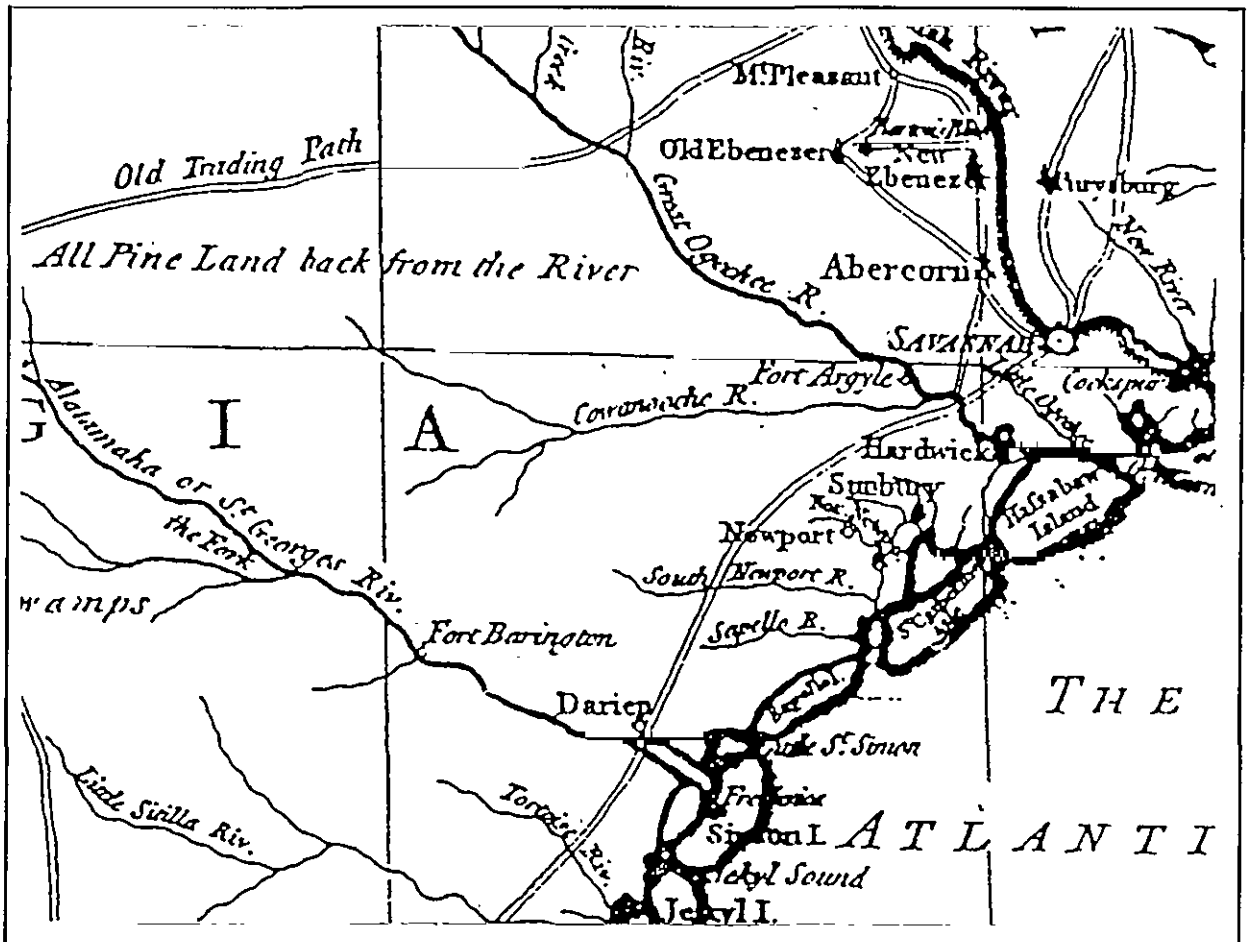

Figure 20. A portion of Hinton's 1779 *A New and Accurate Map of the Province of Georgia* showing the project area.

failed due to the poor agricultural conditions of the Pine Barrens and lack of communication and readily available shipping route to Savannah (DePratter and Howard 1980:43; see also Figure 40). Yet, they did set a precedent for settlement once the Revolutionary War was resolved.

After the war, land at Fort Argyle changed hands many times, until 1781, when 500 acres of land were put up for sale (Campbell et al. 1996:103). After 1800, the "Fort Argyle" was popularly recognized as a reference to the neighborhood of the old fort site (Campbell et al. 1996:104). Fort Argyle property continued to change hands until after the Civil War, when it was listed as having a population o f 15 (Campbell et al. 1996:121). After the 1890s, the Fort Argyle land was used by timber and turpentine industries, and in the late nineteenth century, contained a brick factory (Campbell 1996:128-129).

Archaeological investigations at the Fort Argyle conducted by Southeastern Archaeological Services in 1985 confirmed the location of the fort, a prehistoric component of the site, artifacts associated with a mid-nineteenth century brick kiln, and a scatter of brick, ceramic, and glass artifacts (Campbell et al. 1996:183).

With the war's conclusion, major treaties and concessions from the Cherokee and Creek Indian tribes (1782-1804) allowed the full scale development of lands within central and eastern Georgia. While these cessions have no direct bearing on our understanding of the Fort Stewart area, they are a significant aspect of Georgia history. Perhaps the most succinct overview is that offered by Green (1979:24-41). He recounts the early, and peaceful start of English-Creek relationships with the 1733 and 1739 treaties skillfully brokered by Oglethorpe and explores the gradual deterioration of relationships as the English greedily lusted for expansion. Green also explores the careful balance between the French, Spanish, and English which Creek sought to maintain in order to ensure their own survival (Green 1979:26). As this power balance collapsed, the English availed themselves of the Creek's weakness. Falling deeply into debt, the Creek nation ceded additional land on the Upper Savannah.

During the American Revolution the British influence among the Creeks was skillfully maintained by Alexander McGillivray, a Creek with mixed Scots and French ancestry. Even after the Revolution, McGillivray continued to be an important council to the Creeks, as they strove to balance the power of the Americans and the Spanish. By 1812 the Creeks were deeply divided by a factional conflict which escalated into a civil war between those best described as classic nativists and those who were Anglicized. This civil war became the Creek War in 1813 as those land-hungry Americans, like Andrew Jackson, looking for a reason to intervene found an excuse to wage a "just war." Tennesseans, Georgians, and Mississippians jumped at the excuse to wage a "war of extermination" in order to free additional land. After the death of at least 3000 Creek nativists, the Treaty of Fort Jackson was signed in August 1814.

The Antebellum Period

By 1820, 60% of upland farmers were growing cotton, and slavery played an ever increasing role in that growth, despite bans on slave importation during the last decades of the eighteenth century. By 1820, 44% of Georgia's population was black (DePratter and Howard 1980:45). Over 70% of the population in the area which would become Liberty and Long counties were former African American slaves. Further inland, in the "Pine Barrens," the proportion of slaves dropped to less than 10% (Hilliard 1984:Map 30).

During the antebellum Georgia began to increase its economic share of the American export market. The forced removal of all Native Americans from the state in 1838 accelerated the settlement of interior lands (DePratter and Howard 1980:45). Already established river and road transportation networks were augmented by railroads which connected Georgia's major port city, Savannah, with other major urban centers within the state and region (Figure 21). By the time of the Civil War, railroads connected Savannah to Augusta, Macon, and Waycross. Waycross provided access to coastal Brunswick and Atlanta was accessed by both Augusta and Macon. Branch lines tied together Athens, Columbus, Albany, and Dalton in the northwest corner of Georgia.

With the advent of industrialization Georgia's economic base began to diversify. Textile mills, tanneries, lumber mills, and turpentine distilleries became established throughout the state.

In 1850, Liberty County had a population of

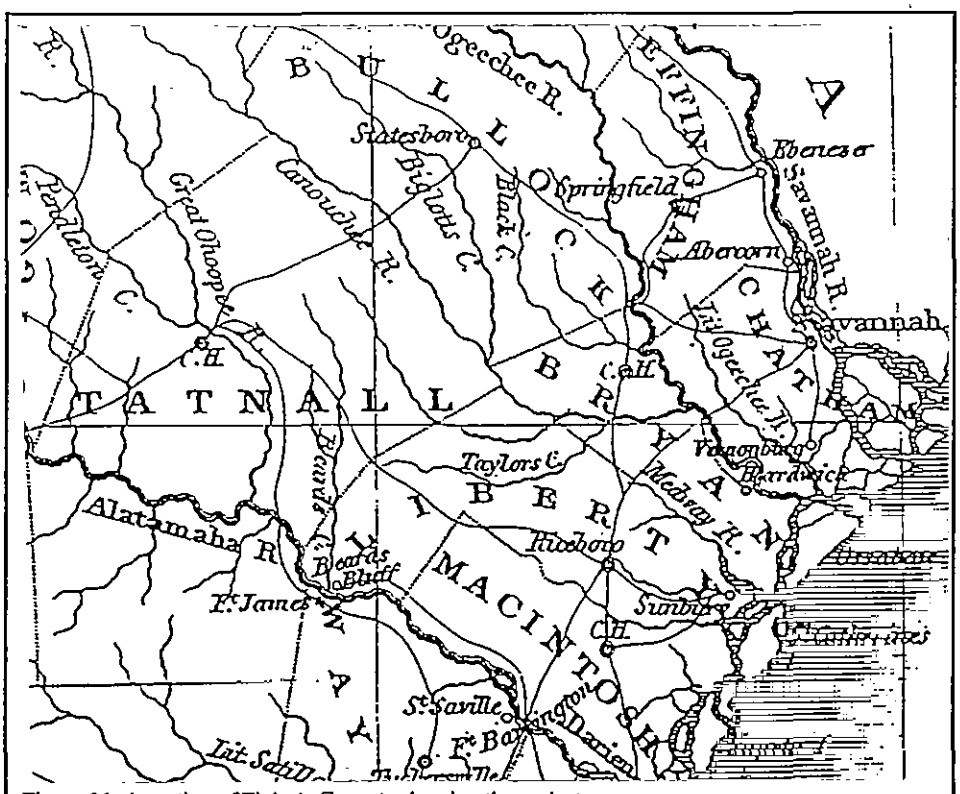

Figure 21. A portion of Finley's *Georgia* showing the project area.

2,020 whites and 5,908 black slaves. The population, however, had increased by only 9½% from 1840. There were 244 farms, incorporating 38,563 improved acres and 303,518 unimproved acres, for an average farm with 158 acres of improved land and the average farm was valued at $3,317. The county boasted 1,100 horses, 15,450 mules, 4,609 sheep, and 10,006 swine. Agricultural products included 2,116 bushels of wheat, 21,432 bushels of rye and oats, 297,614 bushels of corn, 72,318 bushels of Irish potatoes, 26,470 bushels of peas and beans, 40,225 pounds of butter, 24 hogsheads of cane, 11,640 gallons of molasses, 1,892,462 pounds of rice, 1,883 bales of ginned cotton, and 8,865 pounds of wool. The 1850 census reported that slaughtered animals were valued at $28,557. These figures, however, are misleading, since they lump together the large, wealthy rice plantations (which gave "Riceboro" in southern Liberty County its name) with the smaller, subsistence farms which bounded Taylors Creek and its drainages. For example, deeper in the "Pine Barrens," Tattnall County had a population of 2,378 whites and only 831 black slaves. The county's 327 farms included only 14,244 acres of improved land, for an average of 43.6 acres per tract. These farms produced only 47,800 pounds of rice and 321 bales of cotton (DeBow 1854:210-217).

Turning to the Liberty County's industrial development, the county contained only $4,950 of invested capital and only 24 hands were employed. The annual product was estimated at slightly over $7,000. Although unknown, it is assumed that a portion of this invested capital was in the from of copper stills, acquired from the Scotch liquor industry, for the distillation of turpentine. Employment figures would not be reflected in these figures, for by the 1840s and 1850s it became common for slave labor to be used in the cutting of trees and the collection of gum (Thomas 1975:3-4).

The Civil War

The advent of the Civil War and its after effects would haunt the state of Georgia for years. Seceding from the Union on January 19, 1861, Georgia followed South Carolina, Mississippi, Florida, and Alabama into the folds of the confederacy. Georgia, especially, had taken the hard road and "soon found itself in a war from which it would not recover for decades" (DePratter and Howard 1980:46). Georgia's Alexander Stephens became Vice President of the new Confederacy and Robert Toombs was made Secretary of State.

The war began easily for Georgia. In January 1861 a band of Georgia volunteers sailed down the Savannah River to capture Fort Pulaski. At the same time Atlanta began to increase in importance. In the 1850s the town was described as a "sorry-looking place, always

associated in my mind with rain and super abundance of red-clay mud" (quoted in Lane 1993b:x). The population increased from about 2,500 in 1847 to over 11,000 in 1860 to more than 16,000 before the war's end. The Confederates also easily seized the Union arsenal at Augusta and the mint at Dahlonega (DePratter and Howard 1980:46). Additional arsenals were established in Atlanta, Savannah, Macon, August, and Columbus. The state penitentiary at Milledgeville was converted into a rifle factory and the Athens Foundry became a cannon factory.

These gains were quickly offset by the Union blockade along the coast in late 1861 and the fall of Georgia's coastal island fortifications in March of 1862. Fort Pulaski on Cockspur Island was retaken by Federal troops in April of that year (for a review of the historical documents associated with this event, see Anderson 1995). The loss of Fort Pulaski effectively closed the port of Savannah to all those but the hardiest blockade runner. Cut off from the sea, new batteries were thrown up around the cities and paving stones were ripped up from the streets to serve as ballast to sink obstructions in the river.

Other coastal engagements included minor battles at Whitemarsh Island in April of 1862 and Fort McAllister in March of 1863 (Lane 1993b:xi). Additional Union incursions occurred in June 1863 when the bridge over the Turtle River near Brunswick was destroyed and in July when the coastal town of Darien was burned.

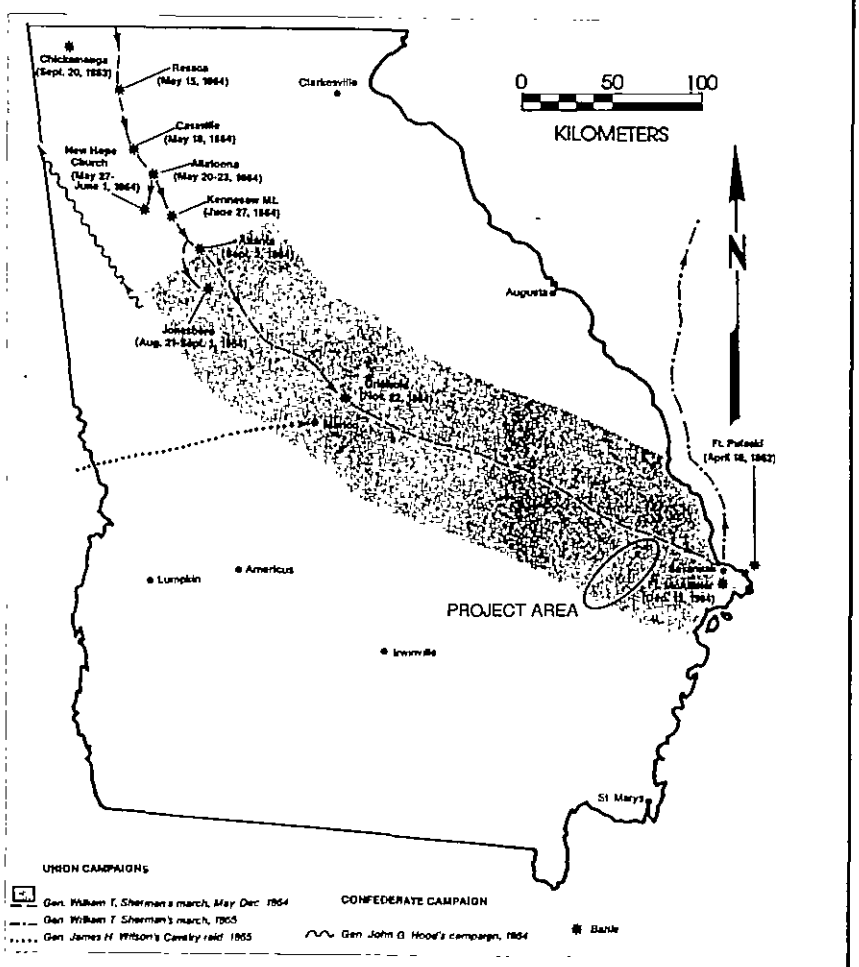

Figure 22. The Civil War in Georgia, showing the project area.

Except for Fort McAllister on the Ogeechee River, all of coastal Georgia was under Federal control. It wasn't, however, until early 1864 when Confederate troops began to build obstructions *above* Savannah that the city's citizens began to realize both that they were being abandoned and also that the war was lost.

In May 1864 the interior of Georgia felt the full brunt of the war (Lane 1993b:xi). That Spring, General Sherman left Chattanooga and began his long fight to the sea with an army of 100,000 Union troops (Figure 22). Following the route of Western and Atlantic Railroad, Sherman faced Confederate forces of about 41,000 troops

commanded by General Joseph E. Johnston and later by General John B. Hood. While initially stymied, Sherman managed to outflank the Confederate positions, forcing them into Atlanta's trenches. After forty days of bombardment, part of the Union forces swung south of the city, threatening Confederate supply lines to Macon. At that point, on September 1, Hood evacuated Atlanta. From May to September, 4,988 Union soldiers and 3,044 Confederates were killed in Georgia. Those hospitalized from malaria, typhoid fever, diarrhea, dysentery, measles, and other diseases accounted for an additional 46,000 Confederate troops and nearly 63,000 Union soldiers.

After taking Atlanta in September 1864, Sherman's route to Savannah lay open. He wrote his wife, "We have devoured the land. All the people retire before us and desolation is behind. To realize what war is one should follow our tracks" (Lane 1993b:xiv). By November 16th, Sherman was done with Atlanta and had to decide whether he would retreat to Tennessee or continue his march to Savannah. By taking Savannah, Sherman would be able to create a new base on the Atlantic coast which would decrease the length of his supply line (Nevins 1971:158). This would assist him in his move north to harass Lee's rear lines south of Petersburg. It was also Sherman's intent to live off the land and by doing so, destroy as much food, munitions, and infrastructure as he could, thus eliminating the threat posed by Johnson and Hood's wide ranging armies.

Sherman left Atlanta with 60,000 infantry and 5,500 cavalry. He would lose less than 850 men during his operations within central Georgia and the capture of Savannah (Nevins 1971:158). His troops covered an area approximately 96 km wide and 400 km long throughout the Georgia countryside (Nevins 1971:158). "Sherman's line of march followed the Georgia Central Railroad, covering a wide belt on either side, and east, of Louisville . . . between the Ogeechee and Savannah Rivers" (Guernsey and Alden 1977:686 [1866]). Sherman's right wing:

> commanded by Major-General Oliver Howard, moved through Jonesboro, Monticello, Gordon, [and] Irwinton. The left wing under Major-General H.W. Slocum headed to Covington, Madison, Eatonton, [and] Milledgeville. Brigadier-General Judson Kilpatrick led a cavalry which struck toward Macon, fell back to Gordon and rejoined Sherman at Milledgeville (Lane 1993b:xvii).

By November 22 Sherman's army had captured the state capital in Milledgeville and had crossed the Ogeechee by the end of November (Figure 23). One account, of Mary Jones of Liberty County, expressed the anguish of local residents:

> Clouds and darkness are around us. The hand of the Almighty is laid in sore judgement upon us. We are a desolated & smitten people (Lane 1993b:220).

Sherman faced little resistance and finally captured Savannah from the west on December 21, one day after the city was abandoned by the Confederacy.

Campbell et al. (1996:117) note that Union troops visited Fort Argyle, the nearby area of Dillon's Ferry, and the Canoochee River Bridge below Eden and Taylor's Creek. They observe, however, that there is no mention of the Taylor's Creek community. At nearby Bryan Courthouse (Eden, later named Clyde), the Union military erected earthworks, while other regiments spread out to defend their new territory (Campbell et al. 1996:118).

The damage done by Sherman's armies to Georgia's agriculture and industrial infrastructure in thirty-four short days would take decades to overcome. Sherman estimated the damage to the state during his campaign as "fully $100,000,000.00 one fifth of which had been of use to [the] army, and the rest shear waste and destruction" (Guernsey and Alden 1977:690-691 [1866]; Nevins 1970;159). Between Howard's right wing and Slocum's left wing, the Union army, during the campaign from Atlanta to Savannah, set free over 3,000 African American slaves, confiscated over 26,500 head of cattle, 6,171 horses and mules, 10.5 million pounds of grain and corn, 10.5 million pounds of fodder, over 43,000 bales of cotton, and destroyed over 310 miles of railroad to where "scarcely a tie or rail, a bridge or culvert," remained in central Georgia (Guernsey and Alden 1977:692 [1866]; Nevins 1971:159). Various support industries were also destroyed. These included "machine shops, turn-tables, depots, water-tanks, cotton gins and presses" (Guernsey and Alden 1977:692 [1866]). Brigadier-General Kilpatrick's operations would add 14,000 bales of cotton, 12,900 bushels of corn

and 160,000 pounds of fodder to Howard's and Slocum's totals.

By April of 1865 the war would be over but, because of Sherman's army and its destruction, life, as it had been known to the residents of central and coastal Georgia, ended in December 1864. Campbell and her colleagues provide an overview of the impact the Civil War had on the local residents. Here, like in many other small Southern communities, Sherman and his troops tend to be vilified (Campbell et al. 1996:118).

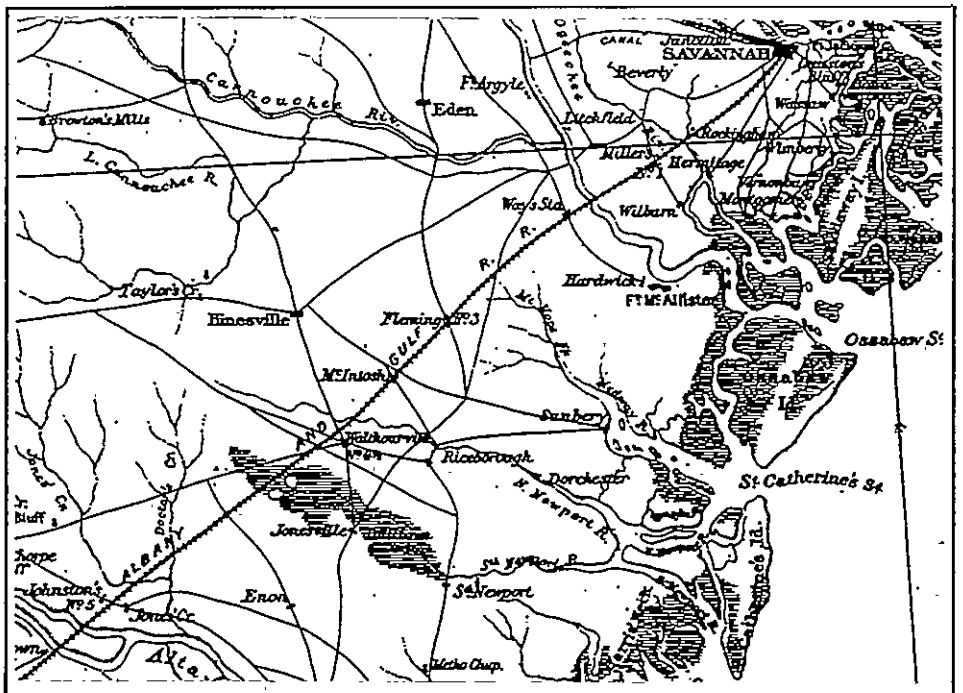

Figure 23. The project area in 1865 (adapted from *Atlas to Accompany the Official Records of the Union and Confederate Armies*, Plate CXLIV.

Sherman's march through Georgia, however, had other affects on history. As Sherman marched through Georgia, many slaves deserted their plantations and sought refuge with the Union forces. In what may have been a wise military decision, Sherman made a very poor political judgement, turning most of these freedmen away. Large numbers were re-enslaved by the remnants of the Confederate Army — creating a major political scandal for President Lincoln (Friedheim and Jackson 1996:132).

Lincoln dispatched Secretary of War Edwin Stanton to Georgia to investigate the situation. After meetings with a number of African-American ministers in Savannah, Sherman issued his famous Field Order Number 15, which set aside almost a half-million acres of captured Confederate land, dividing it into small plots for freed slaves. Although this approach satisfied the needs of the immediate political situation, as Willie Lee Rose discusses at length, the North would eventually turn their back on Southern blacks and relatively little of this acreage would actually be distributed (Rose 1964:328ff).

The combined force of Sherman, coupled with the increasing number of freed blacks and the use of black troops by the North, resulted in the call by Jefferson Davis, president of the Confederacy, for the recruitment of slaves into the Confederate Army, offering them both pay and freedom. This proposal was passed by the Confederate Congress in early 1865. As Friedheim and Jackson note, "the fact that the South was freeing African Americans in order to save the Confederacy was one last bit of dramatic evidence that its war to preserve slavery was all but lost" (Friedheim and Jackson 1996:133).

Reconstruction

The postbellum period within Georgia was difficult for the state and its residents. Economic recovery from a devastated industrial and agronomic base, as well as inter-related transportation systems, would affect Georgia's recovery until the 1890s. The problem was compounded by nationwide depressions that lasted from 1873 to 1878 (DePratter and Howard 1980:46).

While Sherman left Georgia in January 1865, it was June of that year before Federal authority was extended from Macon and Savannah throughout the rest

of the state. In May 1865 President Andrew Johnson proclaimed James Johnson, a lawyer from Columbus, the provisional governor of Georgia. A convention of "loyal" Georgians repealed the secession ordinance, abolished slavery, and repudiated the Confederate debt in October 1865. A new governor, Charles Jenkins, was elected and the new legislature ratified the Thirteenth Amendment and passed additional laws to guarantee the liberty of the freedmen.

Congress, however, reacted angrily to Southern excesses and passed a military reconstruction act in March 1867. Georgia's new government was abolished and the state returned to military rule. State government was again reorganized, only this time there were even more blacks and fewer whites in the legislature.

In April 1868 Rufus Bullock was elected governor and in July a new legislature ratified the Fourteenth Amendment. The state capital was moved from Milledgeville to Atlanta. But by December 1869 Congress once again became outraged by the excesses of the Ku Klux Klan and re-established military rule, again "re-organizing" the state government. Under this third government, the Fifteenth Amendment was ratified and Georgia was finally readmitted to the United States in July 1870.

Economic and Political Reorganization

While the political future of Georgia was in upheaval, an effort was made to restore some degree of the state's agricultural prosperity. Freedmen often returned to the plantations to work under white bosses rather than white owners, and were still tied to a task system. Owning no land, freedmen and landless whites formed the nucleus of a relatively new labor system of tenancy. This new labor system grew dramatically, rising from about 53% in 1890 to over 65% in 1910 and peaking at about 68% in 1930 (Coleman 1991:259). The number of farm units increased from 224,00 in 1900 to 310, 132 in 1920, with the average size of the farm unit dropping from 117 acres to only 82 acres.

While there were a variety of systems, tenants usually paid either a cash rental or became sharecroppers who divided their crop with the landlord in return for the ability to work a portion of the plantation. Interestingly, not only did the proportion of black farmers in the flat pine lands decrease substantially between 1899 and 1910 so did the rate of tenancy. Although the rate of tenancy was double that for blacks than whites (24% as compared to 41.9%), statistically the flat pine lands held the lowest number of white tenant farmers and other than the flat pine lands, only the lower coastal plain contained fewer black tenants than any other portion of the state (Harper 1922:329, 332, 358).

Cotton continued to be the major focus of agricultural efforts — offering white land owners with their only hope for economic revival. Just as "King Cotton" drove the South to the Civil War, it served to nearly ruin any chance the South had to revitalize itself after the war. Although over half of the total value of Georgia's agricultural production was wrapped up in this one product in the pine lands only corn production (by 30%) exceeded the values of cotton (Harper 1922:341).[3] The overall dependence on cotton was the result of a number of different factors. Kenneth Coleman, for example, notes that force of habit keep many farmers growing cotton — they simply didn't know any other crop. Many, he observes, didn't have either the education or financial resources to diversify (Coleman 1991:257). Of equal importance was that with small, and concentrated urban populations, markets for fresh produce were limited. This, coupled with the very poor transportation network crippled efforts to engage in truck farming until the Second World War. Even as late as 1930 only 6% of Georgia's farmers lived near paved roads.

The reliance on cotton, combined with the debilitating effects of the Civil War, created an intricate web of dependency between tenants, land owners, and merchants. After the Civil War the crop lien system emerged as the only viable source of short-term credit. By the 1890s the system had expanded to the point to trapping between 80 and 90% of Georgia's farmers. In order to obtain credit for planting, or sometimes for even living, a farmer obtained a lien on his ungrown crop from the furnishing merchant. These merchants, themselves living on very little hard cash, undertook to finance what were often risky farming efforts. Consequently they typically charged from 25% to as much as 75% interest on their loans under the crop lien system.

[3]As stated by Harper (1922) it should be noted that "acreage and yield fluctuate from year to year, and the census year may have been abnormal in one way or another, so that figures should not be taken too literally" (Harper 1922:341).

In the project area Campbell et al (1996:119) observe that agricultural production was low, livestock herds were small (probably still suffering from the Civil War at least a decade and a half latter), and the farms were typically small. The agricultural censuses for the Fort Stewart area, revealing increased numbers of small farms, parallel those for much of adjacent South Carolina. Campbell and her colleagues suggest the census records are documenting the small land holdings of freedmen — which is very likely.

The Liberty County Grange association toured the Taylor's Creek area in 1876, documenting the small farms typical of the area. Of the 17 examined farms, 14 were "one horse farms." At these 14, 12 used only family labor and only two also used some day labor. At the three "two-horse farms," one used only family labor, while the other two kept a hired hand. They reported largely subsistence crops of corn, rice, sugar cane, sweet potatoes, peas, and oats. Cotton was likely a relatively rare crop.

From the standpoint of corruption, Republican rule during Reconstruction was likely no better, or worse, than Democratic rule either before or afterwards. In Georgia, for example, a white Reconstruction official pushed the state's newly formed public school system to purchase books published by the New York Harper Brothers firm, in exchange for a $30,000 "loan" (Friedheim and Jackson 1996:234). While the same types of fraud were seen, regardless of political affiliation, even the hint of corruption played into the hands of those opposing Reconstruction.

Although the freedmen did exercise their voting rights in 1867 and 1868, they never dominated the Georgia political scene during Reconstruction. Threats of violence by the Ku Klux Klan eliminated any real black influence and by December 1870 the Democrats won overwhelming control of the state legislature. By 1873 this white legislature effectively eliminated virtually all of the advances made by the black electorate by extending residency requirements for state and county elections.

The 1870s and 1880s were a period of economic revitalization, energy, and optimism, for rural Georgia. Although the overall economic situation changed little, if at all, major changes did occur in the manufacture of naval stores, particularly in the turpentine industry. Since the late Colonial Period North Carolina had led the nation in the production of naval stores. This was particularly true of the turpentine industry. Yet, by the late nineteenth century a history of poor planning had led to a decline in production within that state (Thomas 1975:4).

> After 1875, it was to Georgia that many North Carolina turpentine farmers moved to "set up shop" in Georgia's great pine belt, south of the fall line. Most of these North Carolina farmers brought black workers with them and returned each year to obtain more workers from the Carolinas. The farmers built villages or quarters for them on the sites since they had no other place to live (Thomas 1975:4-5).

From 1880 to 1905 Georgia led in the production of naval stores. Florida took the lead until 1923 when Georgia regained its position in the naval stores industry. Yet, it should be noted that while many of the state boasters forecasted a "New South" of reconciliation and reform, much of the state remained locked in poverty and bigotry nurtured by years of slavery. In 1882, Oscar Wilde wróte from Augusta:

> I write to you from the beautiful, passionate, ruined South, the land of magnolias and music, roses and romance, picturesque, too, in her failure to keep pace with your keen Northern pushing intellect, living chiefly on credit and on the memory of crushing defeats (quoted in Lane 1993a:xii-xiii).

In spite of the improvements seen in the urban areas, Georgia remained rural and poor. In 1900, 85% of the state's population still lived on farms or in small villages and 60% continued to work in agriculture. Further, the state's per capita income showed no increase between 1880 and 1900 (Lane 1993a:xiii).

Cotton production on late nineteenth century tenant farms was little different from that practiced on antebellum plantations. The planting, cultivation, and picking was labor intensive, with the entire family, and often a mule, devoting their entire energies to this single minded pursuit. Yields were low and debt continued to be heavy.

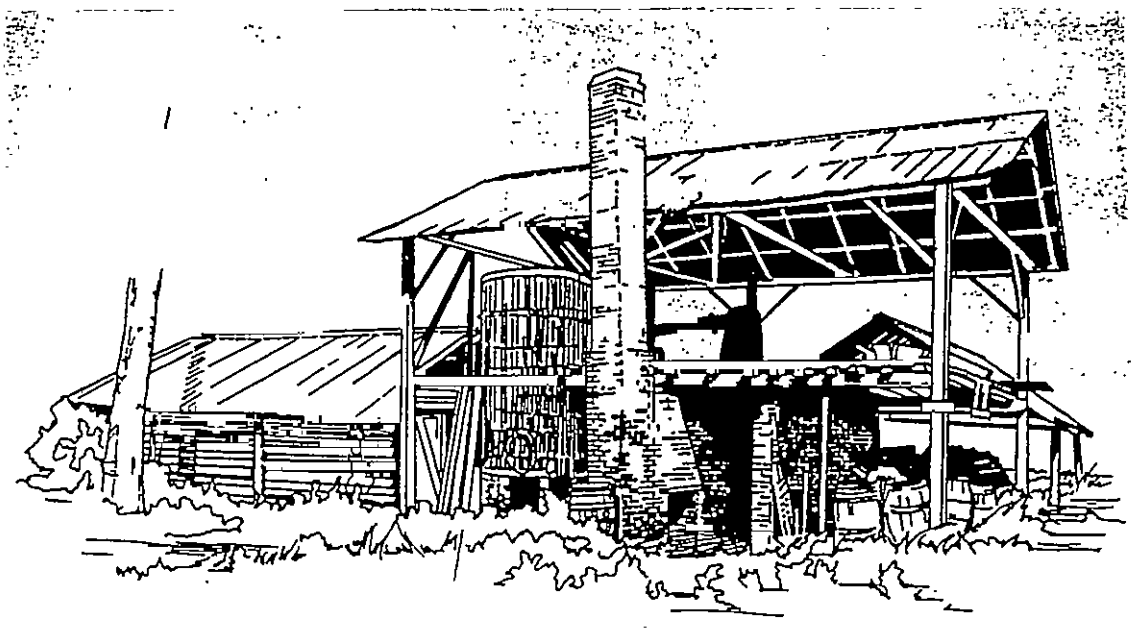

Figure 24. Typical twentieth turpentine still (Thomas 1975:Cover).

Lane (1993a:xiv) points out that debts which could be repaid by a single bale of cotton in 1880 required two bales only five years later in 1885. A major financial panic hit the country in 1893, followed by a nearly seven year depression. Cotton prices plunged to less than 5¢ a pound and it wasn't until 1898 that the recovery drove prices up to 7½¢ a pound. These hard times forced furnishing merchants to severely restrict lending, even based on crop liens. This caused some crop diversification, but little lasting improvement.

Cotton prices did not increase significantly until the early twentieth century, when there was a twenty year period of relative prosperity. Farmers turned their backs on diversification and returned to "King Cotton." The 3.5 million acres planted in cotton in 1900 were increased to over 5 million acres in 1916. It was also at this time that the turpentine industry gained new impetus for its production. This came in the form of Dr. Charles Holmes Herty:

> Herty, a chemist at the University of Georgia, was on a sabbatical to Europe when he heard a German professor relate how the Americans "butchered the pine trees" by cutting a box into the tree to collect the resin and sometimes ruined the future growth of the tree. Herty was also able to see cups, a new invention, being used to collect gum at this time. Herty returned to Georgia late in the summer of 1900 and started his crusade to better the turpentine industry with an initial visit to Valdosta in October of that year. Eventually, he invented the clay, or Herty, cup to "replace the box method of collecting gum". It was only after the introduction of the "Herty cup" that Georgia was able to retain the lead in turpentine production (Thomas 1975:5-6; Figure 24).

Many of the resulting "turpentine towns" are only vaguely remembered by locals and poorly documented in the historic records. Campbell et al. (1996:134-135) provide an interesting sketch of Strumbay, in the Willie area, just west of Riems Cemetery in the location of what is today Training Area B-10. It appears to have originally been a terminal point

on a tram built by timber man William Tuten, although with the expansion of the line it became just one of several stations. There was a post office, at least as late as 1906, and a school which served the white residents. Perhaps more interesting is the nearby African-American community of Stewart Town. Although even less information is available about this community, its existence documents the segregation of services, communities, and even life which characterized the South in the late nineteenth and early twentieth centuries.

Immediately before the First World War, Georgians in general had greater prosperity than they had seen since before the Civil War. The expansion of Rural Free Delivery and the increase in automobiles and telephones contributed to this appearance of prosperity and well-being (Coleman 1991:261). Also contributing was the development of inexpensive fertilizer which began to make the sandy soils of the pine barren woods more profitable. Campbell and her colleagues note that land was cheap and by 1910 cotton was a much more commonly planted crop, at least in the Liberty County area. They note that only did the small owners take advantage of fertilizer to increase their production, but the "owners of large holding who had exhausted the timber and turpentine potential of their tracts turned to farming, utilizing tenant labor" (Campbell et al. 1996:127).

The introduction of the boll weevil between 1915 and 1917 (Hodler and Schretter 1986:86), coupled with increasing competition further north and even outside the United States, sent prices plummeting. Cotton prices dropped from 35¢ a pound to 17¢ in a single season. Cotton yields fell by a third to nearly a half (Coleman 1991:263).

In spite of the spread of tenancy, Bryan, Liberty, and Long counties continued to have low tenancy rates. For example, in 1930, at the height of tenancy, these counties all had less than 35% tenancy, while counties just slightly further inland had ranges up to 80% (Hodler and Schretter 1986:86). The project area continued to be dominated by small, privately owned farms (this is also noted by Campbell et al. 1996:139).

What industrial improvement the state saw focused on very basic extractive industries — cotton, lumber, and paper mills — which plundered the natural environment and paid very low wages. One enterprise in particular — cotton mills — was Georgia's leading industry throughout the half-century from 1890 to 1940. In Liberty County, by 1900, agriculture, livestock, lumber, and naval stores were the primary industries. In this year the county produced about 333 bales of cotton, 2,000 head of cattle and hogs, 2,000 feet of lumber, and approximately 1,000 barrels of resin and turpentine (Groover 1987:70).

In western Liberty County large tracts of property were purchased by turpentine distillery companies. The Lanier Turpentine Corporation owned a number of tracts in the project area. As well, a number of privately owned stills were constructed through out the area. A large still was owned and operated by Mr. Porter of Taylors Creek (Trinkley et al., 1996) as was one owned and operated by Joseph B. Way in Hinesville (Groover 1987:81). As of 1901 Liberty County contained a total of 12 distilleries (Thomas 1975:E-1).

Trade unions were virtually unheard of prior to about 1890. During the first half of the twentieth century most union activity focused on skilled trades. Textile workers used strikes on several occasions in an effort to organize. The most notable occurred across the state during the summer of 1934. Eventually the state militia was called in to break the strike and union organization in the mills would not be successful for another two decades.

The railroads, one of the few truly successful industries in Georgia, had expanded dramatically by 1899. Much of this expansion was in central and northern Georgia. The main line connected Savannah with McIntosh, Walthour, Johnson, and Jesup on the southern edge of the project area, where lines then extended north, south, and west (Hodler and Schretter 1986:171). The bulk of the Pine Barrens wouldn't be readily accessible until at least 1939 (Hodler and Schretter 1986:172). In Liberty County several railroads were constructed to access various portions of the county. The majority of these were "convenient to farmers, naval stores operators, and sawmills except in the upper part of the county" (Groover 1987:80). These would include the Darian and Western Railroad to the south and the Glennville and Register Railroad to the west. The Georgia, Coast and Piedmont was established in 1902. A fourth railroad, the Flemington, Hinesville and Western ceased operation in 1919 (Groover 1987:70, 80). By 1919 there were six freight stations located in the county.

Much like the orientation of small towns and

communities along river and road locations during the eighteenth and nineteenth centuries (Trinkley et al. 1996), a number of small communities grew up along the railroads. Although some of these communities still exist, for example Johnstons Station became Ludowici, a number failed to remain viable through the twentieth century. Many of these Liberty County communities had names like Mendes, Wee Fanny, Goosepond, Donald, and Shady Grove (Groover 1987:70). Many contained schools for the education of both blacks and whites. In 1919 the county contained 98 public elementary schools and a one public high school. A number of privately operated schools supplemented the public system (Groover 1987:83).

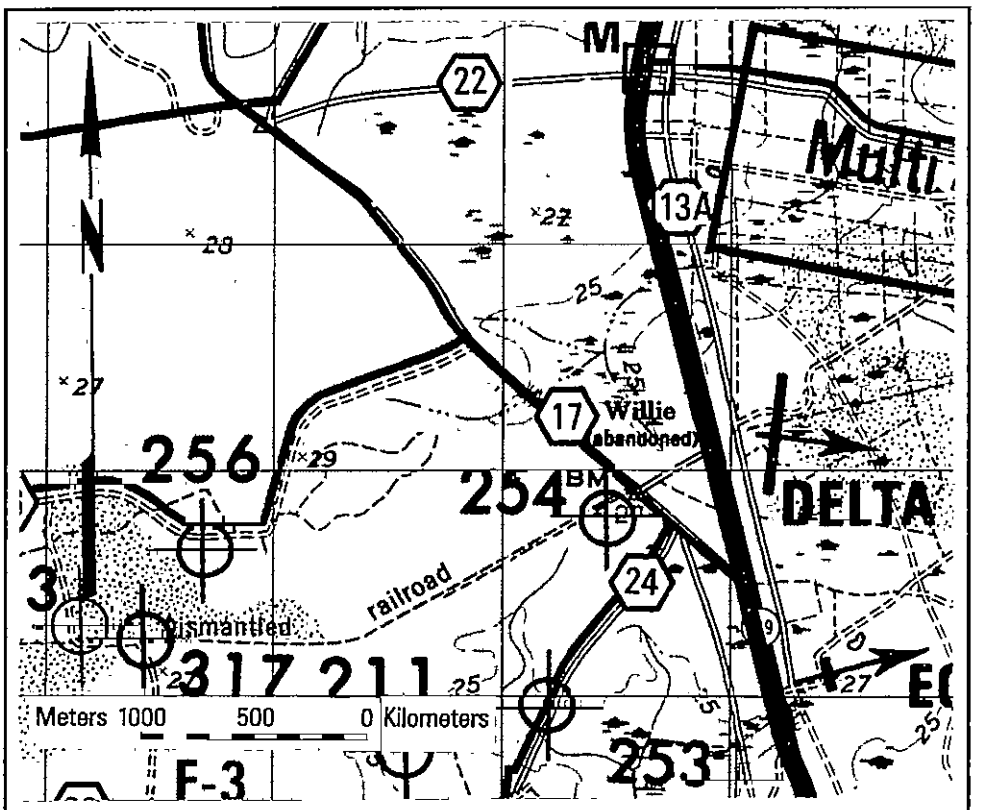

Figure 25. Location of the Willie Neighborhood on Fort Stewart (base map is Fort Stewart Military Installation Map, 1992)

One of these communities, the Shady Grove Community, was re-located by Chicora Foundation during a 1996-1997 survey (Trinkley et al. 1997:79). It was first recorded in 1994 by Fort Stewart's consulting archaeologist David McKivergan. The site was located a the intersection of two dirt roads, and did not contain any architectural ruins, or subsurface features. The Shady Grove site (9LG28) also appeared to have suffered from deflated soils, which indicates that the site does not have integrity. Ceramic, glass, brick, and nail artifacts were recovered, indicating that the site was a domestic site. Ceramic analyses gave a mean ceramic date range of 1813-1900. This small portion of Shady Grove may represent a house site of turpentine workers, farmers, or mill workers common in small communities such as Shady Grove.

Another such community is the Willie Neighborhood, located in Liberty County. The remains of the Willie Neighborhood recovered during this survey are located in NRMU F17.3 (Figure 25), although the Willie site also extends into the surrounding training areas. The 1920 Pembroke Quad (Figure 26) map shows the Willie Neighborhood centered around the railroad depot opened in 1911 by William Tuten, which served as the railhead until at least 1917 (Campbell et al. 1996:136). Lots were sold in the town beginning in June of 1911 and Willie grew to include groceries, stores, a cotton gin, a sawmill, a turpentine still, a church and a school (Campbell et al. 1996:136). Both black and white families lived in Willie, with black families drawn to the community primarily by the naval stores and logging industries (Campbell et al. 1996:136).

The Rise of Populism and Segregation

The Democrat Party, popular with Atlanta businessmen, dominated Georgia's recovery. Farmers,

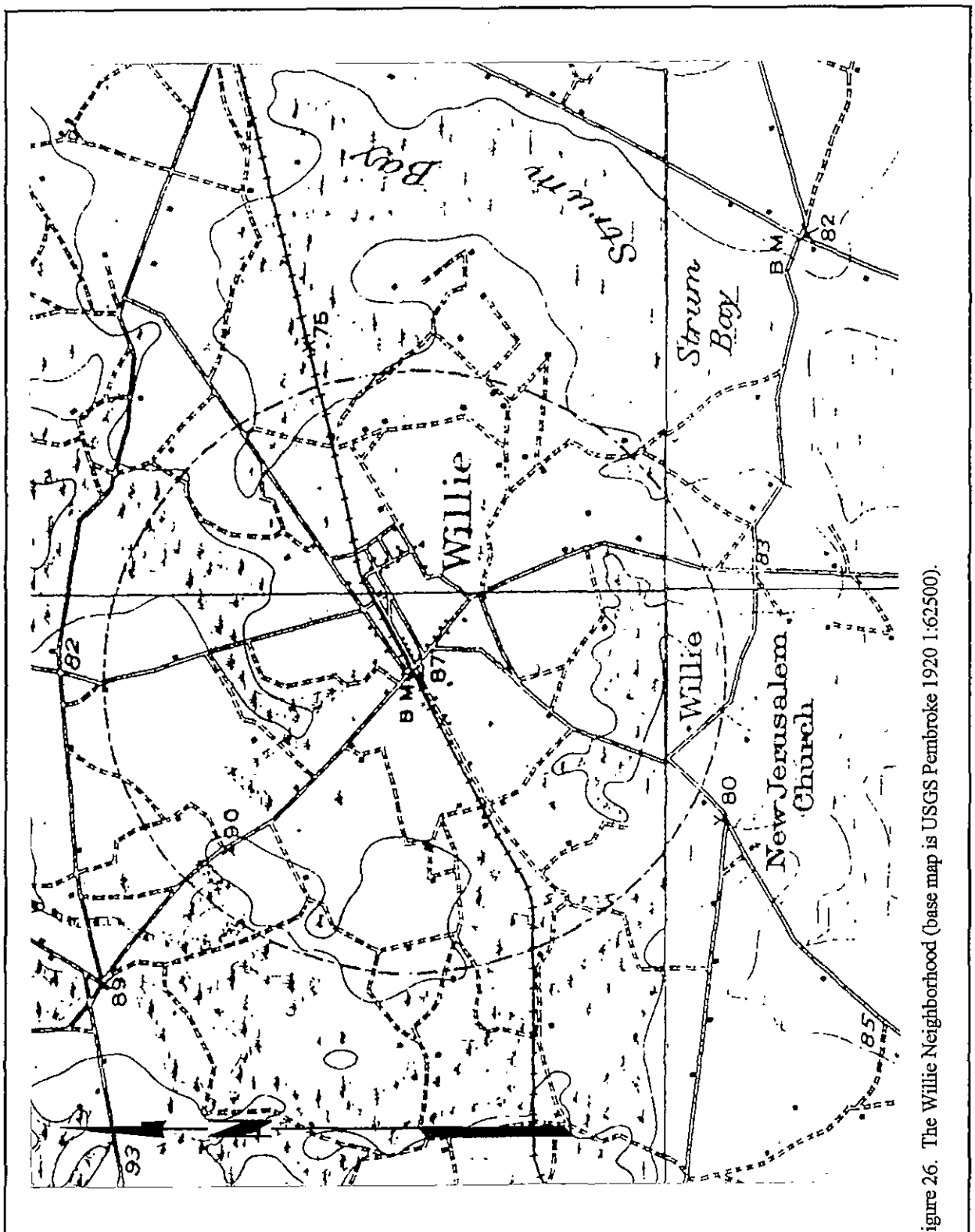

Figure 26. The Willie Neighborhood (base map is USGS Pembroke 1920 1:62500).

unhappy with the shift toward "big business" and the urban economy, were easily defeated by Democratic appeals for unity against the threat of black domination, at least during the 1880s. By the 1890s, however, the power of the rural communities was increasing. In 1890 the Farmers Alliance unseated conservative Democrats in six of the 10 Congressional Districts, took control of the party, and easily won both the governorship and the legislature (Lane 1993a:xv).

Faint with power, these populists bolted from the Democratic party and began an appeal to the common interests of all farmers — black and white alike. Urging economic reform and appealing to the discontent of both poor blacks and whites, the leader of this movement, Tom Watson, drove the conservative Democrats to outlandish displays of election fraud. Blacks (and whites) were provided free liquor and barbecue, then driven to polling places. Using the tactic of voting early and voting often, the Democrats won landslide victories against the populists — garnering more votes in some precincts then there were registered voters.

The Democratic response to Tom Watson was borne of fear. Black illiteracy had dropped from 92.1% in 1870 to 52.4% in 1900. By the early 1900s blacks owned 1,400,000 acres of property valued at over $28,000,000. Simply put, in a single generation freed slaves had managed to increase their land holdings by a million acres and reduce their rate of illiteracy by half. The white population, still yearning for a world of "darkies" who knew their place, viewed this kind of progress with alarm. Lane recounts one Georgian who put the view of the white population very plainly:

> As long as a Negro keeps his place I like him well enough. As a race, they are vastly inferior to whites and deserve pity. This pity I am willing to extend as long as they remain Negroes, but the moment a nigger tries to become a white man, I hate him like hell (quoted in Lane 1993a:xvii).

As the agrarian empire of Georgia began to collapse, and white and black people began to move into the cities, crossing traditional and accepted lines of behavior, segregation sprang up almost overnight. Georgia's first statewide segregation law was passed in 1891, with additional laws enacted in 1897, 1905, and 1908. Cities also began to pass municipal ordinances against blacks (for an overview, see Kennedy 1990).

As the economic conditions of the state worsened there was a dramatic outbreak of lynchings, which Lane suggests reflected the "poverty and frustrations" brought on by the collapse of cotton and the failure of populist reforms (Lane 1993a:xix). Between 1889 and 1918 Georgians lynched at least 386 people — more than any other state — and 93% were blacks.

The white populists, believing that it would be necessary to shackle blacks in order to achieve their own economic freedom, engaged in one of the dirtiest campaigns ever seen in Georgia. In the aftermath of vitriolic oratory, Atlanta exploded in a four-day race riot. The new governor of Georgia, Hoke Smith, pushed through a constitutional amendment to disenfranchise the black in 1908, making Georgia the seventh Southern state to do so. As Lane observes, "a half century after emancipation, Georgians had put the black back 'in his place'" (Lane 1993a:xx; see also Ayres 1995 and Du Bois 1992).

At first slowly, and then in very large numbers before and after the First World War, blacks engaged in the "Great Migration," moving out of the South. There was a shift from south to north, rural to urban, and from agricultural to industrial.

World War I stimulated some diversification of crops, but had few other economic impacts. It certainly did not solve any of Georgia's economic or social ills. Following the war, a series of economic crises struck. Cotton prices continued to fall, the boll weevil continued to advance, and cotton was taken out of production. The state's farm population declined by 375,000. Finally, as if to seal the fate of Georgia, the Great Depression hit in 1929.

The Depression and the Modern Era

The New Deal agricultural policies of the 1930s to some degree helped large farms, but small farmers and especially tenants continued to suffer. Farms were abandoned as the migration to the cities continued.

One of more successful programs for Georgians was the establishment of the Federal Land Bank system, which served to undermine the crop lien system by providing affordable credit (Coleman 1991:265).

Another major change in the lives of the ordinary Georgia farmer was the creation of the Rural Electrification Administration in 1937. Prior to this 97% of the state's farmers lacked electrical service. By 1950 forty-three cooperatives had been created and most of the farms in Georgia were electrified.

While causing much hardship on tenants and sharecroppers, the Depression and the associated government programs also served to break "King Cotton's" monopoly. Tobacco, which was already the state's second most important crop by 1927, doubled in acreage by 1939. The 1930s also saw Georgia assume the lead in national peanut production. Pecan production increased and there was also a steady increase in the commercial production of tomatoes, beans, cabbage, cantaloupes, and other truck crops.

It was World War II, as much as any New Deal program, which drug America, and Georgia, out of the Depression. Military bases pumped federal dollars into the state and war production expenditures encouraged even further economic development (Coleman 1991:339). Per capita income would jump from about $350 in 1940 to more than $1,000 in 1950. Most of this growth was directly attributable to the rapid growth of industry and manufacturing.

Campbell and her colleagues have identified one appraisal report for a farm in the Fort Stewart area which they suggest may be typical. On the eve of World War II, the farmer:

> cultivated about one-third of his 94-acre tract; the rest remained forested. His homestead included a small wood-frame dwelling, a garage, smoke house, syrup shed, corn crib, barn with attached shed, a hen house, and another shed with stalls attached. The crib and hen house were built of logs; the other buildings all were of frame construction. Around the yard stood a picket fence. Water came from an open well. Twenty seedling peach trees, several well-grown pecan trees and a grape arbor stood on the premises. Pine trees suitable for pulpwood and saw timber, as well as pine and cypress for poles grew on the property, as did pines usable for naval stores production. In summation, the appraised judged this to a "a fair farm unit with the forest portion of the tract in good condition" (Campbell et al. 1996:143).

Several small communities, at least one (Taylor's Creek) dating to the antebellum, continued to be the focal points for the project area, each representing small, somewhat diffusely clustered combinations of commercial and residential structures held together by their cross-road locations. In spite of this, it appears that even these surviving towns had their economic bases eroded by the boll weevil and the exhaustion of the timberlands used for naval store operations.

Campbell and her colleagues attempt to categorize various sites as representative of different historic periods, but with only limited success. They note that, "other than the churches and cemeteries mentioned in the general discussions above, no specific sites associated with the 1865 to 1880 period have been identified" (Campbell et al. 1996:122). There are four sites with nineteenth century remains, which may (or may not) represent early postbellum occupations. In addition, they observe that there are an additional 150 sites which contain both nineteenth and twentieth century materials, as well as an additional 21 sites with only twentieth century remains. Most of these sites represent scatters of materials, some of which have been recognized as razed structures (Campbell et al. 1996:138). They point out, however, that archaeological testing of these historic sites is so sparse that there is little information with which to attempt any refinement of their temporal placement (Campbell et al. 1996:147). This problem, of course, is exacerbated by the relatively few ceramics providing good temporal markers for the late nineteenth and early twentieth centuries.

Fort Stewart, created in June 1940 with the purchase of 2025 ha, was initially called Camp Stewart and was intended to serve primarily as a training facility for National Guard units being inducted into the regular army (Campbell et al. 1996:150-151). The acreage was quickly expanded, so by 1941 the base incorporated 60,750 ha.

The area, selected for both its strategic importance protecting Savannah as well as its inexpensive land values, was thought initially to have a

relatively low density of families. Early government projections suggested that only a few hundred families would be affected. By the time the base was firmly entrenched, it appears to have displaced upwards of 6,000 people and 1,500 families (Campbell et al. 1996:151).

During the early years of World War II the base was used primarily for anti-aircraft training. By late 1944 its function shifted to general troop training and by 1945 the focus was on training cooks and postal workers. In July 1946 Camp Stewart, as it was called, was deactivated. With only a skeleton force of military and civilian personnel stationed there, the base fell into disrepair and was used primarily as a National Guard summer camp (Campbell et al. 1996:153).

In 1953 the base's function shifted to include the training of tank units, although National Guard units continued to use the camp during the summer. Peaks in activity occurred during the 1961 Berlin Airlift and the 1962 Cuban missile crisis. During the Vietnam Conflict the base was used by the Aviation School Element and became a U.S. Army Flight Training Center.

After Vietnam the base came close to closing, but was eventually saved by the decision to organize an infantry brigade and division. Campbell et al. (1996) note that the First Brigade, 24th Infantry Division became the first unit of this reorganization to use the Fort Stewart facilities (Campbell et al. 1996:153).

Campbell et al. observe that, to date, no sites dating from Fort Stewart's early history have been identified and comment that:

> the absence of sites associated with mission activities is likely due to sample error rather than a death of such sites. There should be remains that were associated with, for example, training exercises. Many of these may now be abandoned (Campbell et al. 1996:155).

RESEARCH STRATEGY AND METHODS

Research Goals

The primary goals of this survey were to identify, record, and assess the significance of archaeological sites within the nine survey tracts, which total 1,066.02 ha on Fort Stewart. As stated earlier, this work is being done in order to fulfill compliance with the National Historic Preservation Act (Public Law 89-665, as amended by Public Law 96-515) Guidelines for Federal Agency Responsibilities, under Section 110 of the National Historic Preservation Act, Army Regulation AR 200-4, and 36CFR800 (Protection of Historic and Cultural Properties).

Preservation efforts offer important economic, tourism, and education opportunities (see, for example, Rypkema 1990). Yet, clearly these are of little consequence to a government agency whose mission statement is national defense. Clearly, in such a case, the motivation is compliance with law. In spite of this, preservation offers intangible benefits, such as external benefits to society, which are worthy of careful consideration. U.S. Representative John Lewis from Georgia has remarked that, "it is not enough to learn from history or a movie, we must make sure that these precious pieces of our history are preserved." Knowing and understanding our past, many have argued, creates better citizens and hence a better society.[1] Citizens take greater pride in their city's, county's, and country's historical achievements. This pride naturally boosts morale and enhances civic participation. Native American and African American groups can rightly take pride in the expression of their unique ways of life, their history, and their contribution to our Nation. Exploration of our past reveals the heights of which humanity is capable. The study supplies continual inspiration and promise. The exploration of the past makes it possible to keep on seeing, thinking, and reflecting afresh — and this freshness and willingness to explore the past is essential to the democratic process. Exploration of the past may offer social commentary by providing new insights into past lives, or how society reacted to past pressures. It may even help us to better understand the failures of the past.

It is also important that a country which has so strongly advocated educational improvement and reform should also understand the irreplaceable role that historic and prehistoric resources can play in teaching us about our heritage. It is essential that the next generation of citizens understand the stories hidden within our archaeological sites and in our historic churches, houses, factories, and communities. The ability to reach out and touch the past, forming a strong and clear link between yesterday and today, offers an unforgettable understanding of another way of life and helps our children better understand the fabric of life in our country. By exploring and emphasizing African American and Native American history it is possible to strengthen the understanding that our heritage is the combined history and culture of all of our citizens.

Oftentimes historic preservation, through the exploration of the past, may challenge rather than reassure, and provoke rather than sooth. Archaeological research, in many ways, offers much more than history ever can since history is largely written by the well educated, the wealthy, and the white. History tends to ignore the poor, the underclass, the illiterate, making them invisible people. History is what others want us to know, archaeology offers the opportunity to explore the reality of the past without the filter of subjectivity added by some, perhaps many, historical accounts. Archaeology offers the potential to explore the lives of African American slaves that are largely known only through the dry history of white slave-owner account books and plantation diaries. While slave owners were concerned with how many acres a slave could hoe, or how much they had to be fed, the owner was rarely interested in how slaves lived, died, ate, or made their house a home. Likewise, our understanding of Native American groups in the historic period is dominated by traders and occasional visitors who had clear reasons for coloring

[1] One of the earliest discussions of preservation for patriotic reasons is Charles B. Hosmer, Jr.'s *Presence of the Past*, a history of preservation in America up to 1926. He reveals that long before even the Civil War, America's need to create a national identity manifested itself in efforts to preserve historic sites.

their accounts. Archaeology offers the only opportunity for better understanding the reality of the past.

Part of this reality is also the understanding that history is not made up of single events, or great people, or unique ideas alone. As Tony Wrenn and Elizabeth Mulloy explained nearly two decades ago:

> Events are only punctuation marks; the process itself is history. It takes days and days of irritation and heat and insult, and grievance to provoke a revolution. A bicentennial commemorates 200 years — not just the years on either side of a hyphen (Wrenn and Mulloy 1976:15).

History is fluid and on-going. It involves both the great and the small. Archaeological studies help us better understand both the continuum and also the importance of the common person.

Many also point out that historic preservation is a "merit good" — simply because preservation is an important part of life, its perpetuation and dissemination merits government support. Like food, shelter, and education, some feel that everyone should be entitled to a minimum quantity and standard of historic preservation experience, whether that be exposure to historically significant buildings, a better understanding of past industrial technology, or the ability to explore Native Americans who lived thousands of years ago. The government allows preservation efforts to be available and emphasizes their importance by support of preservation on government facilities and land. Inherent in this is the assumption that, without subsidy, the cost of historic preservation is too high relative to most consumer's incomes. It follows that there is an intrinsic wrong in making our history available to only the richest 20% of the population, who are likely to represent a very biased cross-section of our society.

In addition to the legally mandated goals of this study, in an effort to expand the base of our socio-cultural knowledge, we identified and incorporated a range of secondary goals. These reflect an effort to address at least some of the issues identified as important to the discipline. These included both research issues, whose answers will help to better explore and refine our understanding of the past, and methodological issues, whose answers will help to better and more cost-effectively undertake survey and preservation efforts.

The intensive investigation of these 9 survey tracts offers a unique opportunity to intensively explore the archaeology of a section of Georgia which has received relatively little in-depth archaeological attention.

The combination of evidence recovered from these surveys offer an opportunity to study a number of diverse topics concerning the prehistoric and historic settlement. Each of the sites discovered represents some form of human occupation. This may range from a prehistoric hunting camp or seasonal occupation to a contact period frontier settlement, to a mid-twentieth century rural settlement. The study of recovered archaeological data provides a time frame for these sites, thus the temporal duration of these settlements. The functional purpose of these sites may become apparent from the study of tool assemblages or from personal items. They also offer the chance to determine changes in land use patterns over an extended period of time.

This survey has also allowed the critical study of archaeological methodology. Questions related to the effectiveness of 30 m transects in the discovery of prehistoric and historic sites may be addressed. Would other methodologies be more effective in locating prehistoric sites as opposed to historic sites? Should a different methodology be used when attempting to determine patterns and loci of dispersed settlement as opposed to communal settlement? Each of these questions addresses concerns related to surveying singular geographical areas in which multiple habitation components are evident. Although some of these topics are addressed within this report, many of them will need careful consideration and more data to make determinations.

No major analytical hypotheses were created prior to the field work and data analysis, although certain expectations regarding the secondary goals will be outlined in these discussions. The research design proposed for this study is, as discussed by Goodyear et al. (1979:2), fundamentally explorative and explicative.

As stated above, the primary goals of this survey were to identify, record, and assess the significance of archaeological sites within the survey tract. The latter aspect involves the sites' eligibility for inclusion on the National Register of Historic Places, although Chicora Foundation only provides an opinion of National Register

eligibility and the final determination is made by the lead compliance agency, the United States Army, in consultation with the State Historic Preservation Officer at the Georgia State Historic Preservation Division.

The criteria for eligibility for the National Register of Historic Places is described by 36CFR60.4[2] and states that:

> [t]he quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and
>
> a. that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> b. that are associated with the lives of persons significant in our past; or
>
> c. that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> d. that have yielded, or may be likely to yield, information important in prehistory or history.

It is generally accepted that "the significance of an archaeological site is based on the potential of the site to contribute to the scientific or humanistic understanding of the past" (Bense et al. 1986:60). Butler suggests that the only valid measurement of significance must be based on what he calls the "theoretical and substantive knowledge of the discipline" at any particular moment in time (Butler 1987:821). While the use of this approach over that developed by Glassow[3] (1977) has been suggested, Butler himself acknowledges, "we cannot foresee future research questions, and we may not possess the theory to interpret and understand all that is present" (Butler 1987:822). At this point in time it seems essential to recognize the importance of asking the right questions at the right sites, not limiting the number of sites at which questions are asked, or what questions are posed. Clearly, asking "right questions" at the "right sites" can be difficult and requires an understanding of the "theoretical and substantive knowledge of the discipline" (Trinkley 1990:30-31).

National Register Bulletin 36 (Townsend et al. 1993) provides an evaluative process that contains five steps for forming a clearly defined explicit rationale for either the site's eligibility or lack of eligibility. Briefly, these steps are:

- identification of the site's data sets or categories of archaeological information such as ceramics, lithics, subsistence remains, architectural remains, or sub-surface features;
- identification of the historic context applicable to the site, providing a framework for the evaluative process;

[2] In addition to these criteria, properties with traditional religious and cultural importance to Native American or Native Hawaiian groups may be eligible for the National Register, even if they don't seem to fit any of the outlined categories.

[3] Glassow's (1977) approach to evaluating site eligibility is through the use of five properties: site integrity, site clarity, artifactual variety, artifactual quantity, and site environmental context. These qualities stress properties of the archaeological record. *Integrity* refers to the degree of preservation or amount of in situ remains present at a site. It relates to the condition and amount of archaeological artifacts, ecofacts, and features found at a site. *Clarity* indicates how well the strata or subsurface features may be distinguished. *Variety* refers to the qualitative variability in the archaeological remains found at a particular site. *Quantity* refers to the frequency or density of the artifacts or subsurface remains and it is in many ways one of the easiest properties to evaluate (although it is certainly not the most important). The last criterion, *environmental context*, refers to unusual environmental features or zonation which might be important in distinguishing sites or site types.

- identification of the important research questions the site *might* be able to address, given the data sets and the context;

- evaluation of the site's archaeological integrity to ensure that the data sets were sufficiently well preserved to address the research questions; and

- identification of "important" research questions among all of those which might be asked and answered at the site.

This approach, of course, has been developed for use documenting eligibility of sites being actually nominated to the National Register of Historic Places where the evaluative process must stand alone, with relatively little reference to other documentation and where typically only one site is being considered.

In the case of a survey which identifies multiple sites the process outlined by Townsend et al. (1993) can become burdensome. Consequently, this study has elected to combine some of the steps, making the process more streamlined, without substantively altering the goal to ensure that sites capable of providing significant information are provided the protection afforded in the historic preservation process. The development of a context was not undertaken for each site, but is found outlined in the prehistoric and historic overview section of this report. The identification of "important" research goals is briefly discussed below.

The evaluative process is essentially the same as outlined by Townsend et al. (1993). Data sets and integrity are discussed for each site encountered.

There is no single overview of Georgia's prehistory, yet the synthesized statement offered here points out at least a few of the major research concerns for the Fort Stewart area. While certainly not exhaustive, these will be used to help determine which sites identified in the survey are important to a better understanding of the local prehistory.

Perhaps first and foremost, it is not clear where the study tracts fit in terms of regional chronology. Fort Stewart sits on the edge of the coastal zone and that portion of the coastal plain often called the Pine Barrens. It is uncertain if the cultural materials found in the study will clearly be subsumed within the chronology and phase development developed for the mouth of the Savannah River or if it will show influences from the Ocmulgee Big Bend or perhaps even other areas. Will sandy-paste Wilmington-like pottery be found? Will various Ocmulgee-like cord marked pottery be found? Will there be evidence of various Lamar phases? Will Refuge materials be found inland on Fort Stewart?

The amount of data present for Fort Stewart is so limited that the 103,550 ha tract is largely *terra incognito*. This problem has been recognized by Campbell et al. (1996:194) and they, too, emphasize the need for additional survey work. Until much more work is done on the base it will be impossible to clearly understand the role it plays in the prehistory of the Georgia Coastal Plain.

Second, there seems to be little documented information available concerning the importance of this Pine Barren area of Georgia throughout prehistory. While it is clearly no longer viewed as a hostile wasteland devoid of culture, there remain legitimate questions concerning the frequency of sites, their function, and their distribution on the landscape. Long-term investigations at Fort Stewart provide a unique opportunity to explore these questions and develop a more comprehensive understanding of site locations and densities.

Third, there is a need to excavate sites that represent the range of types for each phase of the regional sequence. Only through excavations will it be possible to explore the complete culture history of the area. Excavations are essential to provide accurate descriptions of assemblages and to assess diachronic changes. Excavations are necessary to collect subsistence data, which will have special bearing on the Mississippian groups found in the region. Excavations are also absolutely essential to the development of platforms from which processual studies can be launched.

While the surveys Chicora Foundation is currently under contract to provide do not involve the kinds of excavations necessary, the survey work can identify sites which exhibit the potential to address this need.

One of the secondary goals we outline is to examine the location of both prehistoric and historic sites

in relation to landforms, soil types, proximity to water, and soil drainage. Our goal in this effort is to further refine, or at least explore, the predictive model currently available for Fort Stewart. Our conclusions explore the importance of landform, soil, and drainage issues to settlement and also present additional data on the expected range of site density for the Fort Stewart area.

Another goal is to determine the ability of 30 m interval shovel test transects to locate archaeological resources on a given tract. The survey tracts at Fort Stewart, which were found to contain both prehistoric and historic resources, were considered by Chicora as a prime opportunity to again study the ability of this archaeological method to determine external site boundaries on widely divergent site types. Comparative data from the 9 survey tracts was used to determine the effectiveness of 30 m transects in these areas of the base.

Another goal was to determine site function and duration based on artifact content. Sassaman et al. (1990) have suggested that examining the tool to debitage ratio can provide functional information about a site. For instance, a low tool-debitage ratio will reflect either "locations of intensive lithic tool production, or locations were tools or cores were modified but not discarded" (Sassaman et al. 1990:224). A high tool-debitage ratio correspond to "relatively intensively utilized locations (e.g. field stations) away from bases and/or sources of lithic raw material" (Sassaman et al. 1990:224). Artifact density is also a method of examining site function since it reflects the "relative intensity of material discard at a site. By extension, the amount of discard is assumed to be proportional to the cumulative duration of site occupation and/or the total number of site occupants, and/or the intensity of activities from which discarded debris was generated" (Sassaman et al. 1990:223). Diversity of the assemblage can also measure the length of occupation since the discard rate of class one artifacts (such as hafted bifaces, pots, atlatls, etc.) is so low that all classes of artifacts will only be found together at sites with long occupational histories (Sassaman et al. 1990:224). This length of occupation can also be measured by the number of components present (Sassaman et al. 1990).

Density studies have also been helpful in determining site function and duration at historic sites. There has been an extensive amount of work done defining site function and duration during European contact, colonial, and post-colonial historic periods. Extensive studies, conducted at colonial plantation and settlement sites throughout South Carolina (Lewis 1984, 1985; South 1993; Ferguson and Babson n.d.; Trinkley et al. 1995) utilize ceramic typologies. European, Native American, and African American earthenwares answer questions related to the function and duration of these sites. Quite often, social status and position may be determined as well. Related land use studies may be enhanced by this data.

As well, the nature of Fort Stewart as an active military base has particularly affected the historic archaeological resources found there. A number of studies have been conducted at locations where military activity was instrumental in either the deposition or removal of cultural resources related to their operation (Legg and Smith 1989; Barr 1996; Trinkley 1996, Trinkley et al. 1996). Initial archaeological studies at these sites tend to find a paucity of material. At Fort Stewart this is due to the removal of historic structures found on the base at the time of land acquisition by the United States government in the early 1940s, and regular policing of areas of military activities according to military regulations. At Fort Stewart, favored bivouac areas tend to be located where previous historic sites have been recovered. The lack of cultural materials at these sites may be related to ongoing activities by the military, personal collection of artifacts, and camp cleanup.

Archival Research

Site records provided by the Consulting Archaeologist at Fort Stewart were used in the background research rather than those at either the University of Georgia site files in Athens or Department of Natural Resources files in Atlanta. A total of eight previously recorded archaeological sites were found on record at Fort Stewart for the nine survey areas. Two are recorded within the survey tract and are listed in Table 25. No standing structures exist on any of the tracts. Unlike the Taylors Creek survey (Trinkley et al. 1996) which had broad support from former residents of the community for a positive recommendation for possible National Register nomination, very little historic or informant information is available for other small communities, such as the Willie community previously located within the interior of Fort Stewart (see the **Prehistoric and Historic Overview** section of this report).

Table 25
Previously Recorded Sites

Site	Phase	Date Recorded	Tract
9LI259	Historic	June 1983	A12.2
9LI312	Historic	July 1994	F17.3
9LI315	Historic	July 1994	B7.2
9LI318	Historic	July 1994	B7.2
9LI338	Historic	July 1995	E8.3
9LI375	Historic	Dec 1996	B7.2
9LI499	Historic	Oct 1997	B7.2

Field Methodology

As specified by the Georgia State Historic Preservation Division, an archaeological *site* is defined as five or more artifacts in a 20 m area or any two consecutive positive shovel tests. An isolated *occurrence* consists of five or less artifacts. All archaeological sites and occurrences were assigned state site numbers.

Subsurface testing, for the purpose of defining site boundaries, consisted of testing along cardinal directions at 10 m intervals on sites less than 50 m across and 20 m on larger sites.

The scope of work specified that high probability areas include transects and shovel tests spaced at 30 m intervals across the tract. Low probability areas consisted of transects spaced at 30 m intervals with shovel tests excavated every 50 m.

Shovel tests, which were typically 30 cm by 30 cm or greater, were excavated to subsoil (i.e., the B horizon by USDA definition) or the maximum depth achievable with a shovel (about 75 cm). Shovel test depths generally ranged from 30 to 75 cm, although some were more shallow due to the presence of water within the test. Fill was screened through 0.62 cm mesh hardware cloth and soil stratigraphy was recorded on positive shovel tests.

Positive shovel tests recorded during the survey of transects were further tested by positioning shovel tests in a cruciform in cardinal directions from the original positive shovel test. Shovel tests were excavated in this cruciform shape until two negative shovel tests in a row were encountered. When more than five artifacts were recovered in two consecutive shovel tests, the area was designated a site and a 50 cm by 50 cm test unit was opened. The test units were excavated to subsoil and soil profiles for these units were recorded using the Munsell Color Chart designation. Overall views of the sites and photographs of the test units were taken using black and white and color transparency film.

This methodology was employed for all survey tracts, except NRMU F7.2 and NRMU E6.3, which were designated "walkover" areas due to the possible presence of unexploded ordnance. For these two tracts, survey was conducted by placing transects at 30 m intervals and walking the transects, noting a negative surface collection every 30 m, and when positive surface collections were encountered, noting the location of these. When positive surface collections along transects were encountered, square collection units were laid out and each unit was surface collected. In some cases, artifacts were discovered on roads and along the side of roads. In these instances, large collection units of varying sizes were surface collected. The methodologies employed for the sites found along roads will be addressed in each site description which follows in this chapter.

Survey transects were plotted and numbered on a project field map and transect logs were kept indicating the location and the soil conditions for each shovel test. Field notes for each positive shovel test and surface collection, in addition to site notes and maps were also recorded.

During the course of this project a total of 838 transects were traversed and 24,417 shovel test were examined. Of the 24,417 shovel tests, 2,431 shovel tests (10.0%) were not excavated due to the presence of standing water or disturbed areas such as borrow pits.

In survey tract NRMU A9.1, a total of 84 transects were surveyed and 1,463 shovel test units were to examined (Figure 27). Of these, 1,416 (or 97%) were excavated. The remaining 47 shovel tests were not excavated due to standing water.

Survey tract NRMU A12.1 included a total of 101 transects and 2,495 shovel tests (Figure 28). Of these 2,285 (or 92%) consisted of shovel tests, and the remaining 210 were not excavated due to standing water.

In survey tract NRMU A12.2, a total of 104 transects were surveyed and 1,680 shovel test units were examined (Figure 29). Of these 1,635 (or 97%) consisted of shovel tests and the remaining 45 were not excavated

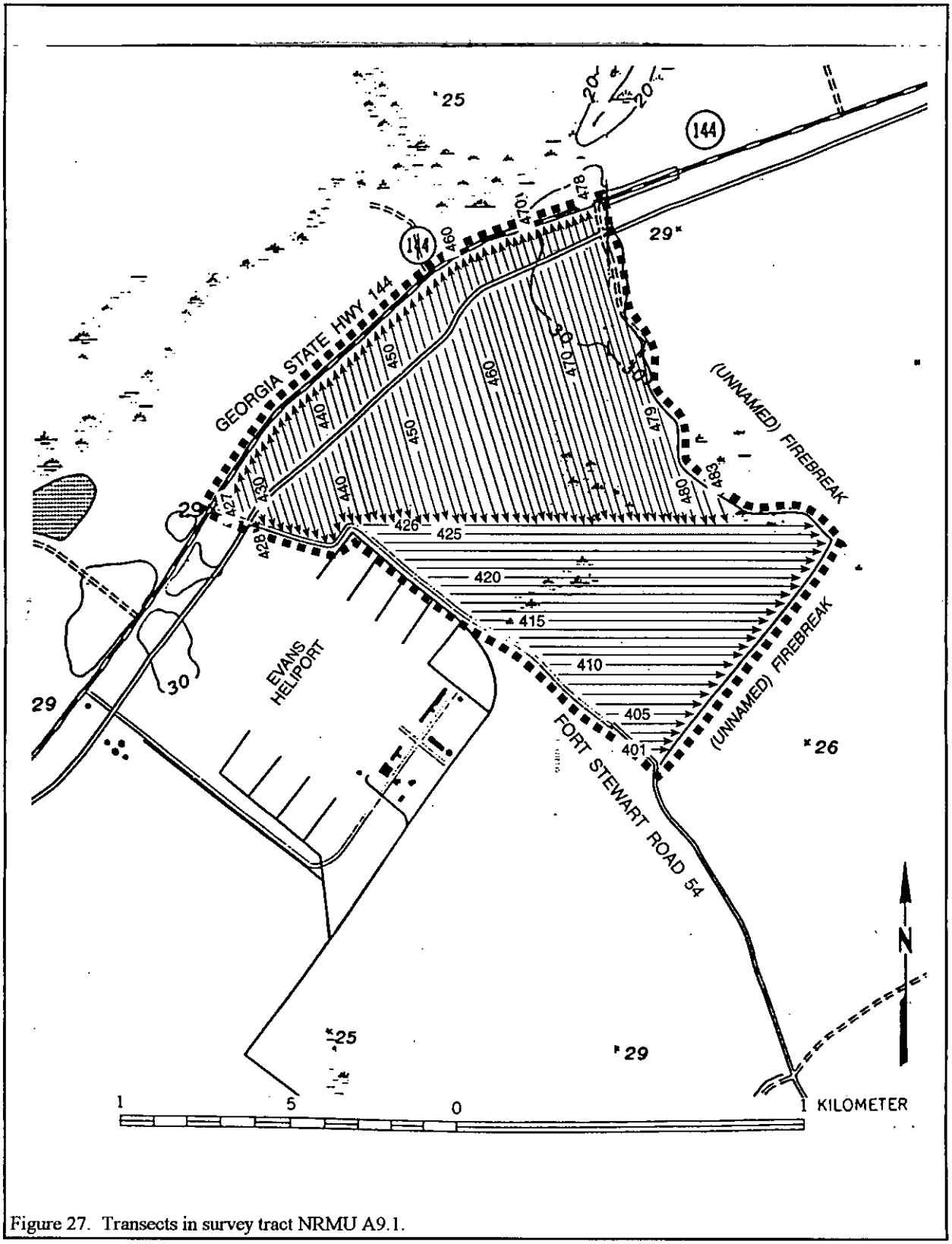

Figure 27. Transects in survey tract NRMU A9.1.

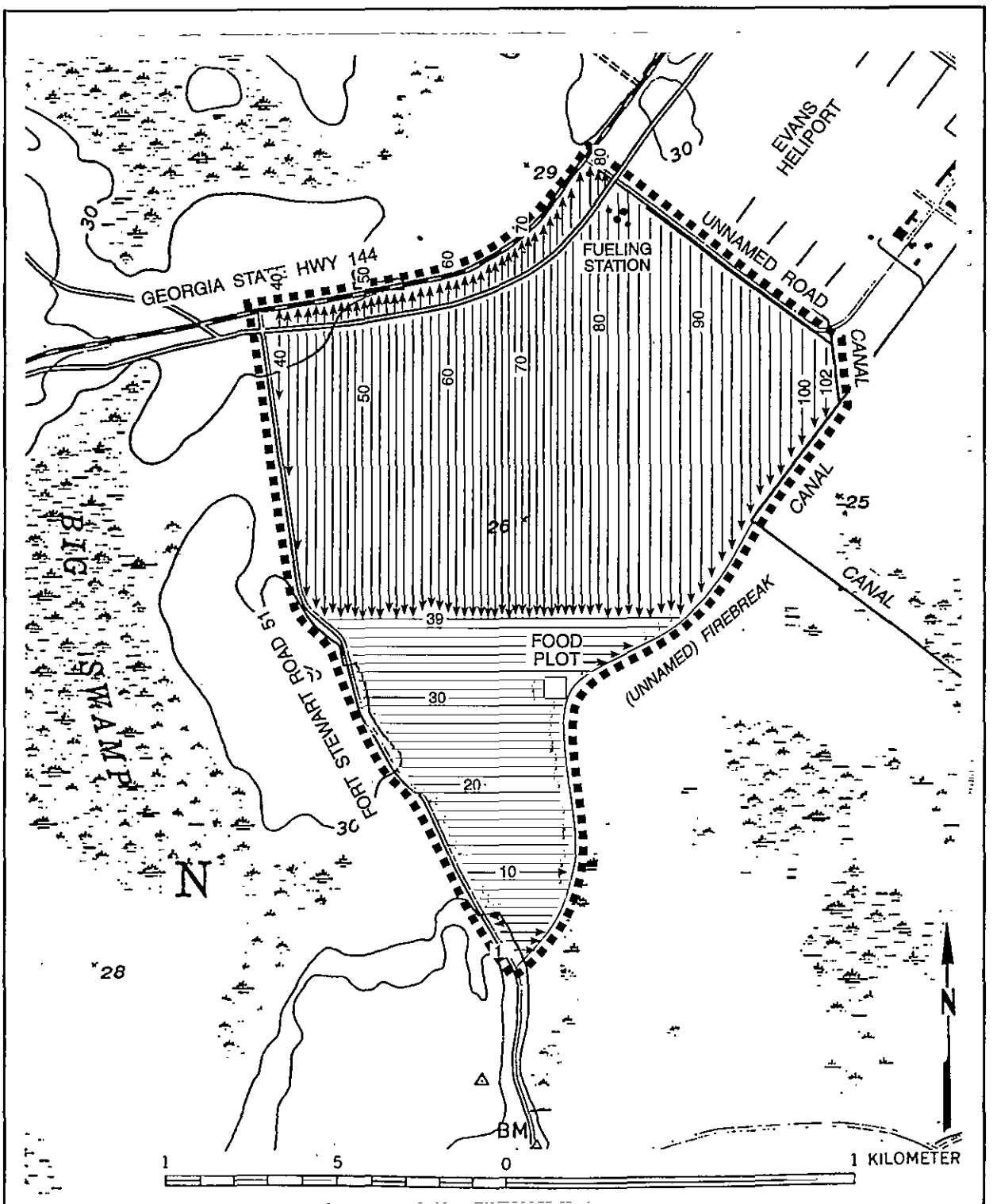

Figure 28. Transects in survey tract NRMU A12.1.

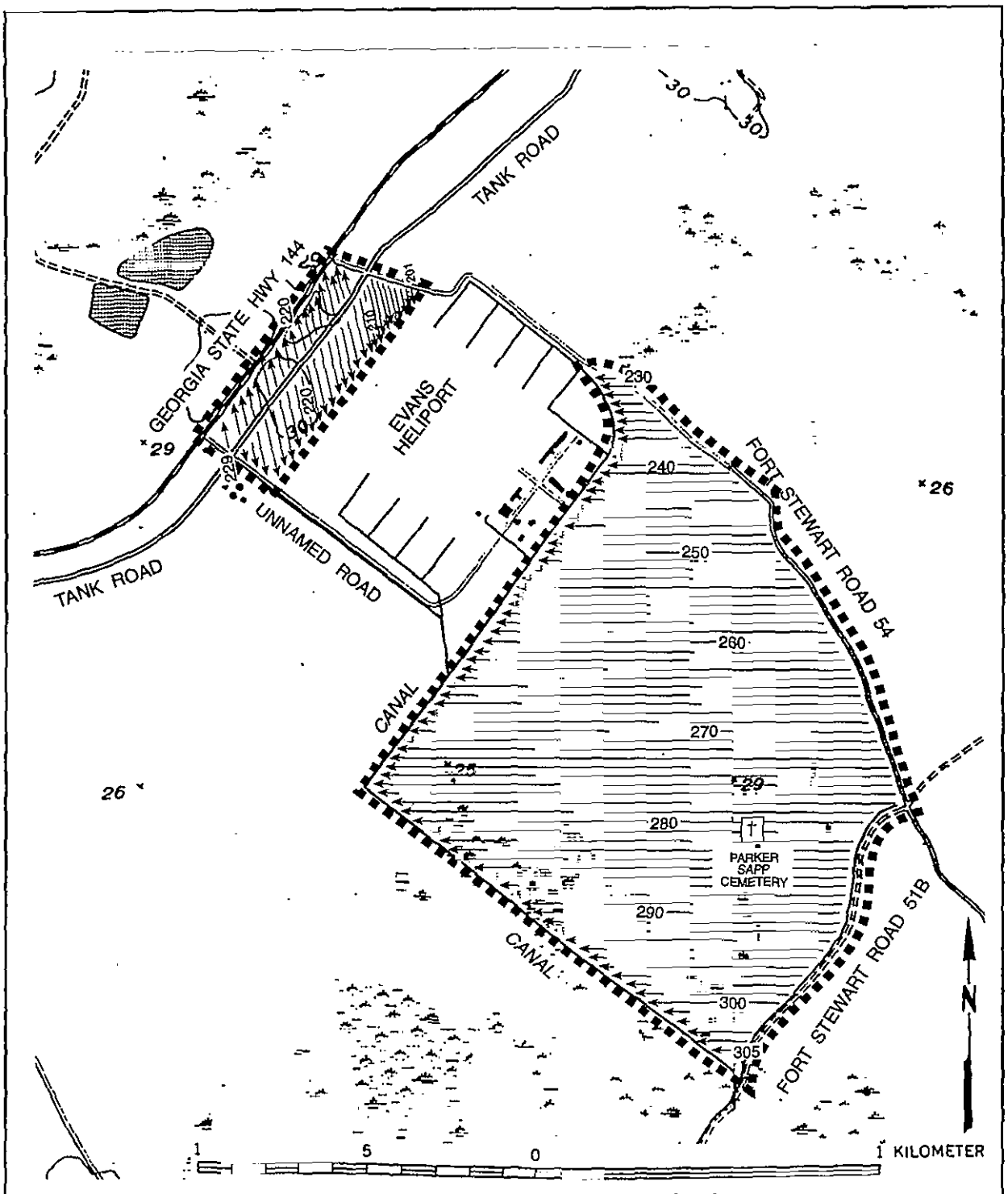

Figure 29. Transects in survey tract NRMU A12.2.

due to standing water.

Survey tract NRMU B7.2 consisted of 66 transects and 1,432 shovel tests (Figure 30). Ninety-three percent, or 1,332, of these shovel tests were excavated, while the remaining 100 were unexcavated due to standing water and a large borrow pit located in the northern section of the tract.

NRMU B7.3, located south of NRMU B7.2, contained 95 transects and 1,245 shovel tests (Figure 31). Of these shovel tests, 1,208, or 97% were excavated. The remaining 37 shovel tests were located in standing water.

Survey tract NRMU F17.3 contained 73 transects and 2,004 shovel tests (Figure 32). During the survey, the area received a large amount of rainfall, creating areas of standing water, and therefore a high percentage of shovel tests, numbering 893, could not be excavated. In addition, a number of shovel tests fell in a large borrow pit.

In survey tract NRMU E8.3, a total of 171 transects were surveyed and 2,512 shovel tests examined (Figure 33). Of these shovel tests, 2, 435, or 97% were excavated. The remainder could not be excavated due to standing water and areas disturbed by military use of the area.

Survey walkover tracts NRMU E6.3 and F7.2 contained 30 and 115 transects, respectively (Figures 34 and 35). Shovel test logs were not maintained for these areas, but numbers of negative surface collections in each tract were noted in daily field notes.

At each *site*, a sketch map was drawn to scale showing the locations of shovel tests, test units, natural and man-made features, and datums. In addition, GPS positions were taken at all *sites*, and at each potentially eligible or eligible *site* a ferrous metal datum (45 to 55 cm in length) was established.

The GPS positions were taken with a Trimble GeoExplorer™ rover with *at least* one position recorded. Where possible, additional positions were taken since averaging provides some improvement on accuracy. GPS accuracy is generally affected by a number of sources of error, including selective availability, errors with satellite clocks, and multipathing. Satellite clock errors can occur when the satellite's clock is a little as a millisecond off, or when the orbit is slightly askew, resulting in a distance error. Multipathing occurs when the signal received from the satellites bounces off trees, chain link fences, and bodies of water. Multipathing probably occurred quite frequently during this survey as many sites were located in heavily wooded areas. The most extreme source of GPS error is selective availability (SA). This is the deliberate mistiming of satellite signals introduced by the Department of Defense. This degradation results in horizonal errors of up to 100 m 95% of the time and vertical errors of up to 173 m 95% of the time.

GPS readings taken with SA active can be corrected by comparing them to data collected simultaneously at a known location or base station, known as differential correction (or DGPS). This was undertaken with the Fort Stewart data as postprocessing (Table 26a). With correction, the accuracy may be ±5 m.

The critical parameters used by the Chicora rover attempted to maximize both data quality and quantity, using the Trimble recommended fault settings (for example, the PDOP mask, which is an indication of the accuracy of the GPS positions which are calculated, is set at 6, with PDOPs below 4 being excellent and above 8 being poor). Although at least 150 positions were recorded at each site location during the current survey, problems with a lack of data were encountered during postprocessing. This problem was discussed on previous survey s with Jeffrey A. Andrews, former LCTA Coordinator and GIS specialist at the Fort Stewart DPW/Forestry Branch, Colorado State University. Although unable to isolate problems concerning a lack of data, he did note that "on occasion a GPS unit will not record any positive hits" (Jeff Andrews, personal communication 1996). Three sites received no readings, and comparative information is not available for these three sites.

To further explore the validity of our settings and instrument, we asked the former LCTA Coordinator and GIS Specialist at Fort Stewart, Jeffrey A. Andrews, to conduct a baseline comparison to determine the accuracy of our unit. The comparison was made using Fort Stewart's LCTA GPS unit, a Trimble Pro-XL running Asset Surveyor. This base unit, operating in overdetermined mode is capable of an accuracy of ±20 cm.

Results of the test confirmed that "under ideal circumstances and proper operation the Trimble GEO Explorer was accurate to within a meter of the reading

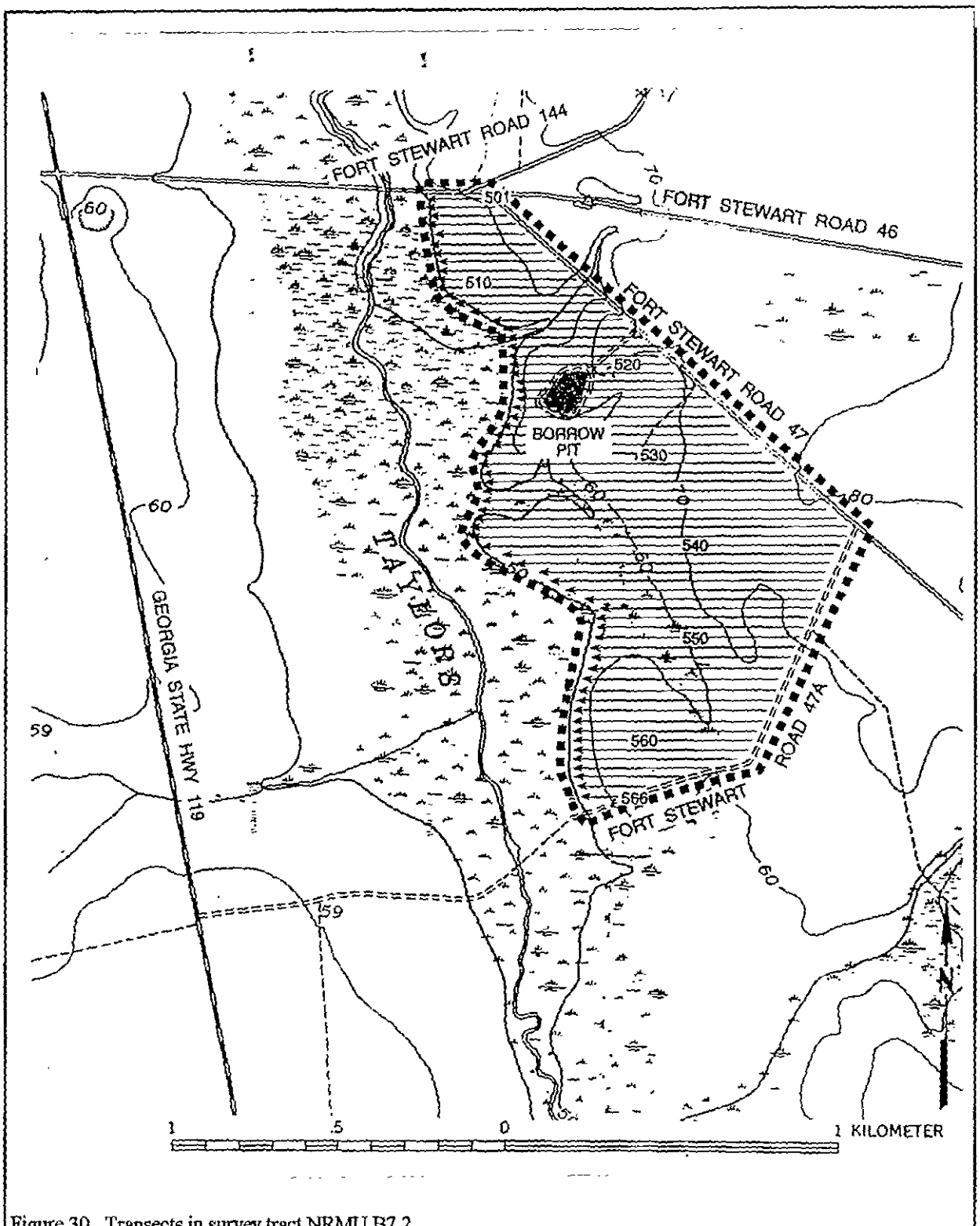

Figure 30. Transects in survey tract NRMU B7.2.

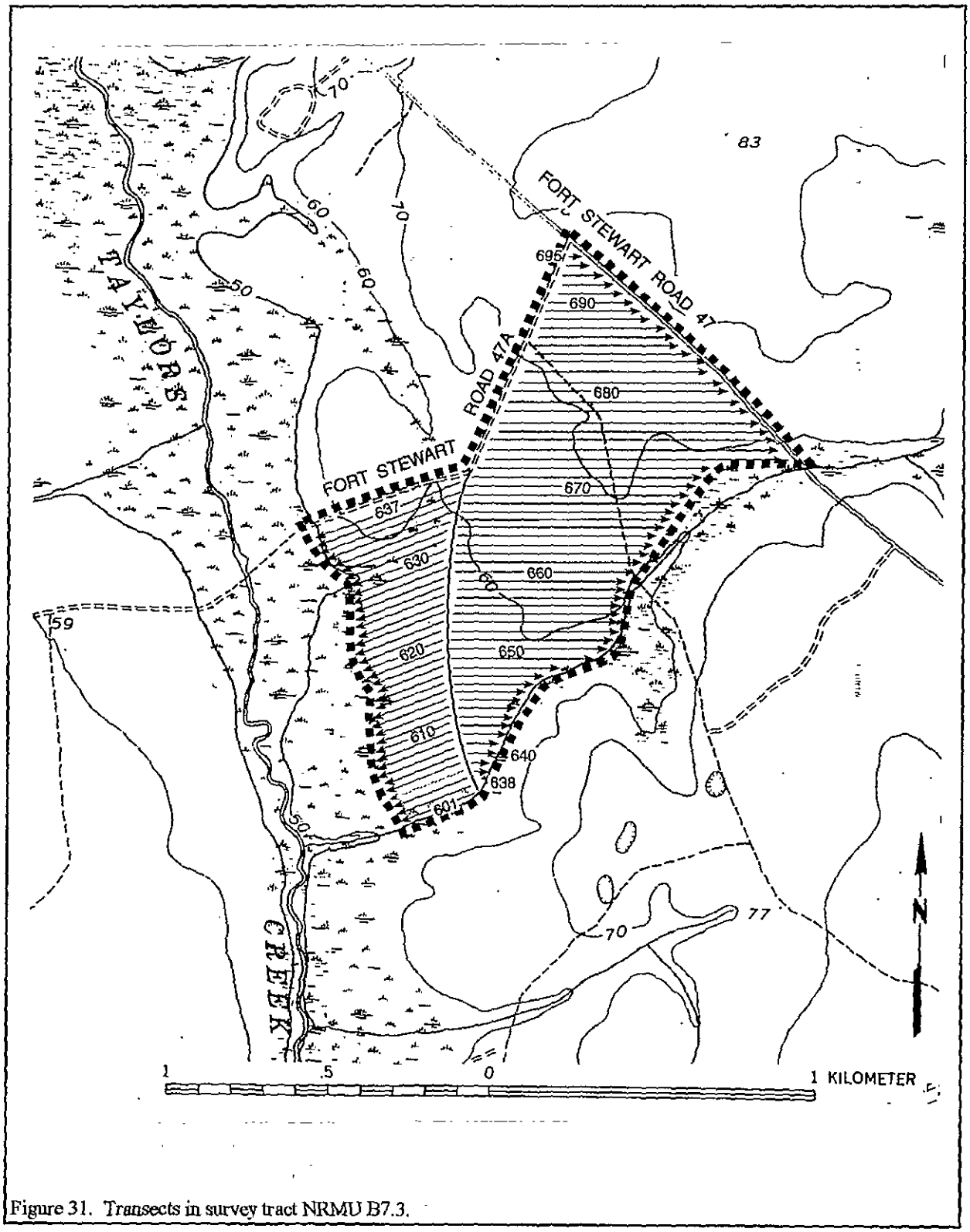

Figure 31. Transects in survey tract NRMU B7.3.

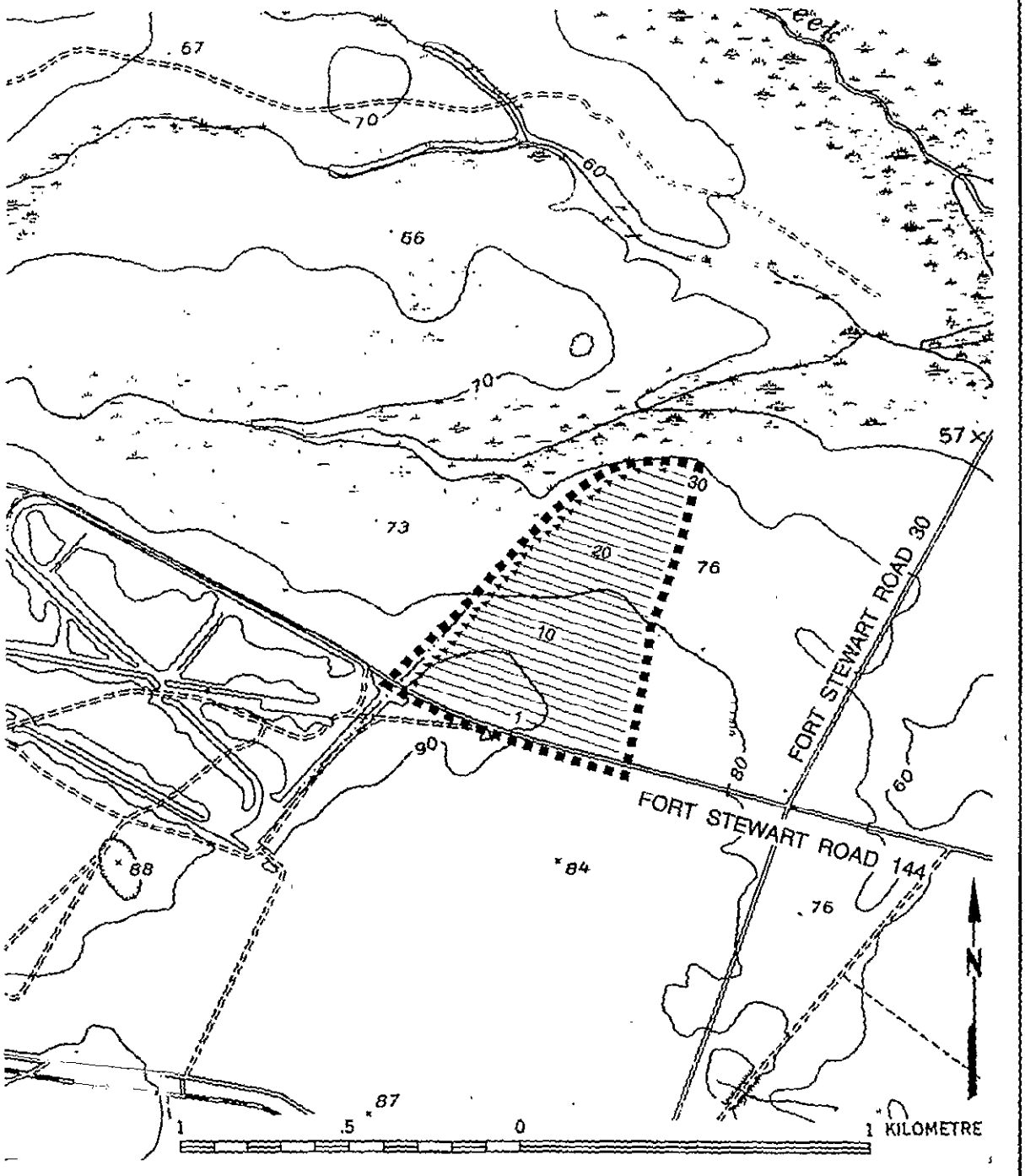

Figure 32. Transects in survey tract NRMU E6.3

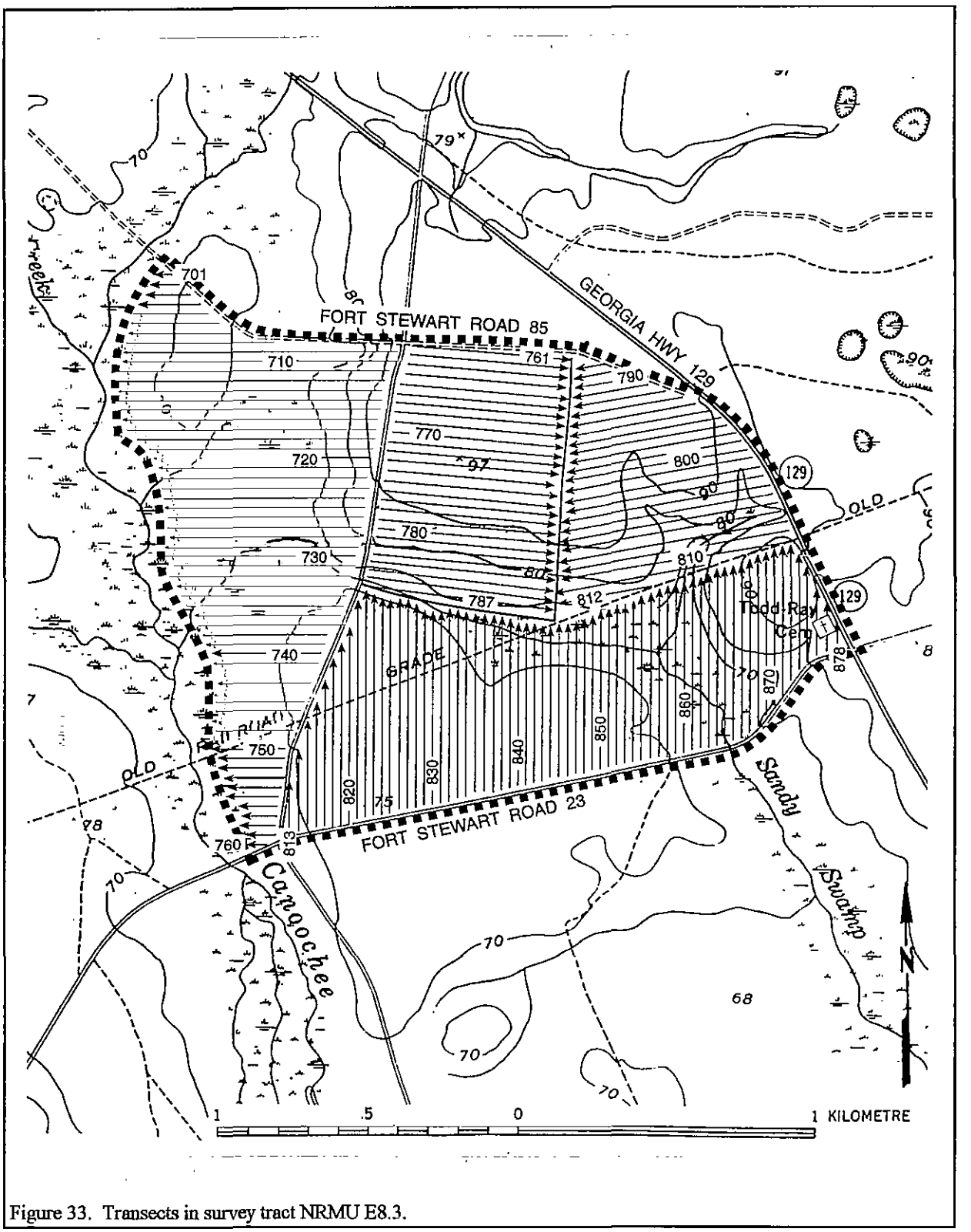

Figure 33. Transects in survey tract NRMU E8.3.

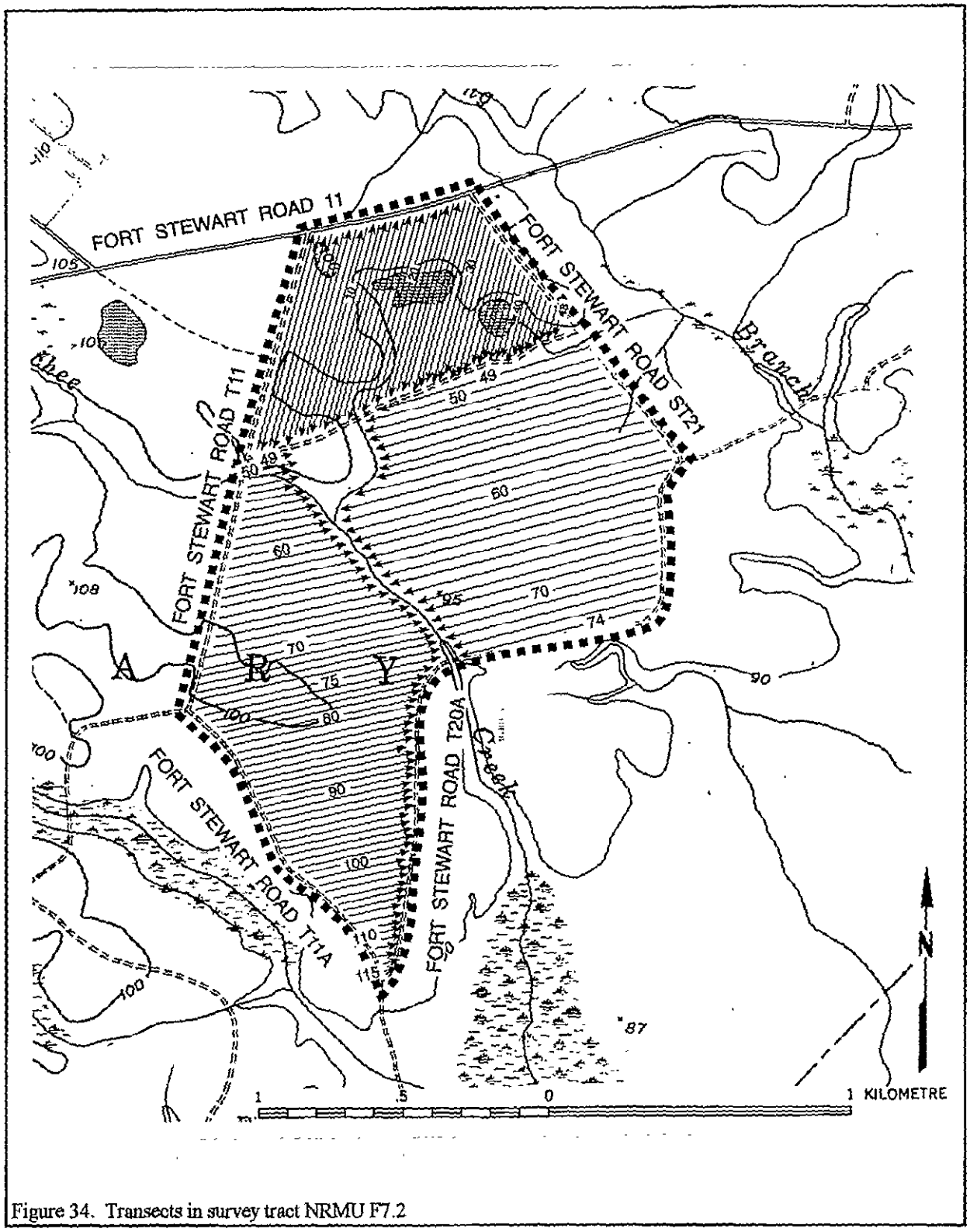

Figure 34. Transects in survey tract NRMU F7.2

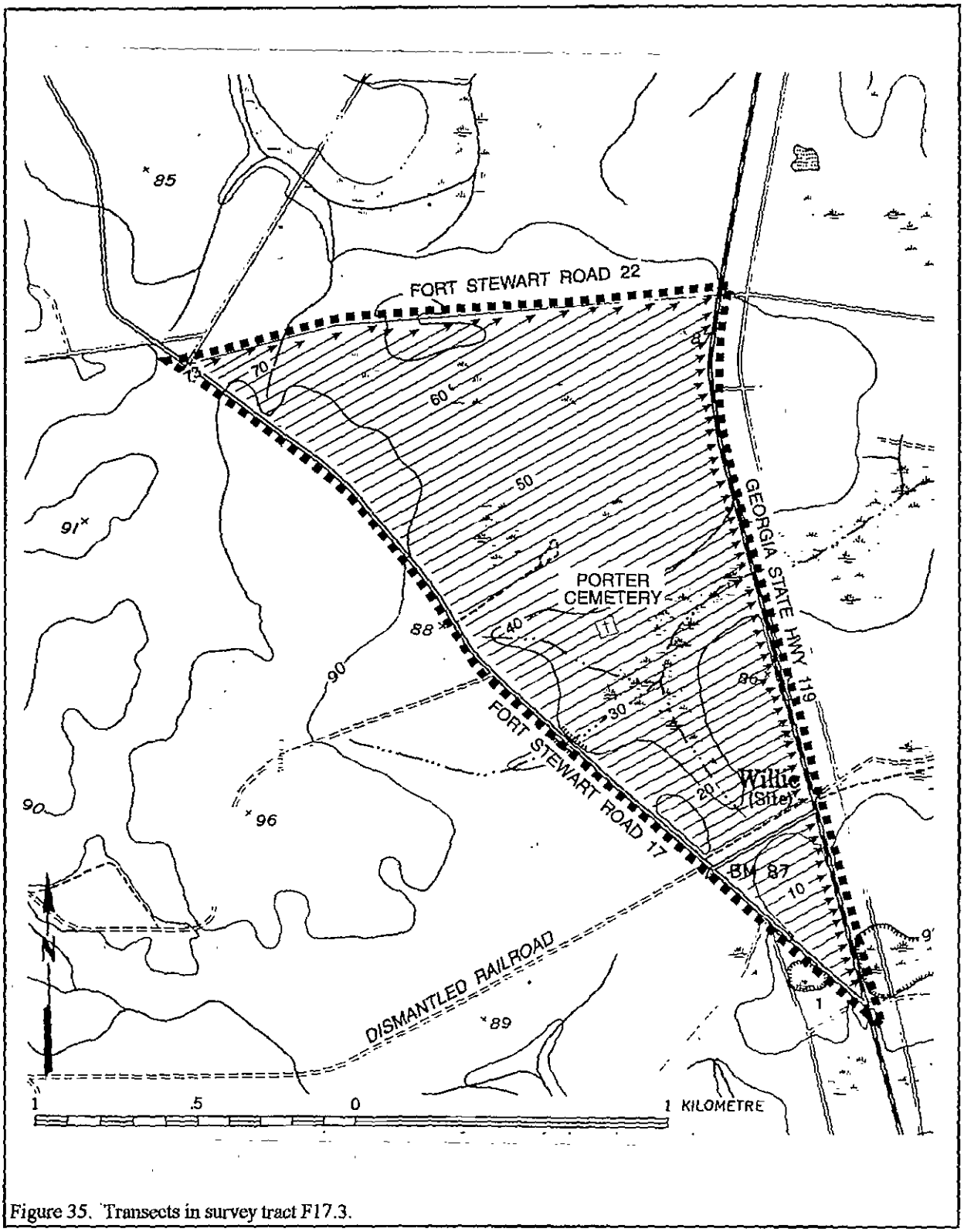

Figure 35. Transects in survey tract F17.3.

Table 26a.
UTM Coordinates for Sites
in All Survey Tracts

	GPS		Map Interpolation	
Site	N	E	N	E
9EV116	3548612	426503	3548580	426495
9EV117	3548511	426462	3548290	426593
9EV118	3548696	426709	3548650	426650
9EV119	3548918	426750	3548860	426760
9EV120	no return		3549120	427160
9EV121	3547798	426325	3547580	426370
9EV122	3547659	426297	3547360	426310
9EV123	3547742	427130	3547570	427060
9LI259	3532730	452850	3532550	452800
9LI312	3541762	436852	3541570	436750
9LI315	3531603	441035	3531340	440800
9LI318	3533005	440865	3532720	440770
9LI338	3541333	431726	3541140	431740
9LI375	3533454	440565	3533135	440325
9LI452	no return		3540380	431960
9LI484	no return		3531140	400580
9LI499	3532410	440875	not hand plotted	
9LI507	3533313	440253	3532890	440380
9LI508	3533173	440667	3533050	440580
9LI509	3532322	440571	3532200	440500
9LI510	3540884	431034	3540940	431060
9LI511	3540688	432264	3540400	431900
9LI512	3540445	432565	3540220	432480
9LI513	3536852	431956	3534740	431780
9LI514	3531745	440989	3531710	441020
9LI515	no return		3531300	440920
9LI516	no return		3531420	441380
9LI517	3531747	450861	3531600	450900
9LI518	3532321	450580	3532090	450590
9LI519	3533886	451172	3533630	451090
9LI520	3534212	451364	3533910	451220
9LI521	3534114	451345	3533830	451280
9LI522	3534127	452436	3533990	452400
9LI523	3532923	452754	3532730	452450
9LI524	3535356	452730	3534960	452500
9LI525	3535436	452869	3535150	452580
9LI526	3535398	452825	3535200	452640
9LI527	3540912	431356	3541010	431100
9LI528	3540972	432340	3540750	432280
9LI529	3542670	436236	3542550	436220
9LI530	3543180	435712	3541940	435820
9LI531	3543181	435788	3542960	435920
9LI532	3532815	452902	3532590	452800
9LI533	3532719	452802	3532440	452709
9LI534	3532776	452829	3532560	453800

collected by the Pro-XL." Mr. Andrews, however, does go on to note that the comparison was conducted under GEO Explorer "may deteriorate under less than ideal conditions (i.e., dense overstory)" (letter from Jeffrey A. Andrews, dated November 4, 1996).

Another factor affecting the GPS coordinates is the datum selected. A datum is simply the mathematical model of the earth's shape. For the position determined by GPS to agree with the corresponding position on a map, the datum in the receiver must be the same datum upon which the map is based. Both the Trimble base station at Fort Stewart and also the Chicora rover are set using NAD (North American Datum) 83 (1983), yet the USGS topographic maps are still printed using NAD 27 (for the continental United States).

The only other change we can immediately identify which might improve the quality of the DGPS data would be to schedule data collection times and satellites being used based on their almanac files in order to maximize precision. This, however, is a time consuming technique and also requires that the field survey be scheduled around GPS data acquisition, which is not cost-effective. Consequently, we recommend that reliance continue to be placed on map interpolation as the primary site location technique.

With this in mid, UTMs were also hand plotted. These positions are provided in Table 26. Comparing the DGPS and interpolated map coordinates reveals differences ranging from 160 m to 310 m. While there are certainly problems recording positions in the woods, as any archaeologist will affirm, the interpolated positions have high levels of confidence since they are based on topographic features, distances and bearings to landmarks, and placement within fairly well identified transects. In all cases, the hand plotted UTMs are considerably more accurate than the DGPS coordinates. The accuracy of the DGPS UTM coordinates may be enhanced in future surveys by changing the NAD settings to NAD 27.

Datums at potentially eligible sites consisted of a length of iron rebar with approximately 5 cm exposed above ground. An aluminum cap marked with the temporary site number was placed on top of the rebar. Permanent site numbers could not be used as they had not yet been assigned.

A pentrometer was used to test areas within and around two of the three recorded cemeteries. The pentrometer measures soil compaction when the tip of the instrument is inserted into the ground and the dial indicator registers the pounds per square inch (or psi). Soils that register less than 150 psi are considered less

compact than the surrounding area and most likely represent unmarked graves. The are within the enclosed cemeteries were probed every three feet. Outside of the enclosures, the area was also tested every three feet.

No deviations from the original methodology described in the Scope of Work other than those mentioned before occurred during the field work. No other unusual or expected problems occurred during the study which affects the quality of the data.

Laboratory Methods

The cleaning of artifacts and cataloging of the specimens was conducted during rain days in the field and completed at Chicora laboratories in Columbia in September 1998. The materials have been curated at Fort Stewart and have been cataloged using that institution's accessioning practices which are an adaptation of those used by the University of Georgia at Athens. No specimens were identified which required conservation or stabilization. Specimens were packed in plastic bags and boxed. Field notes were prepared on pH neutral, alkaline buffered paper and photographic materials were processed to archival standards. All field notes, with archival copies, have also been curated with this facility.

Analysis methods focussed on occupation spans, likely functions of the various sites, and changes in raw material or ceramic preferences. With prehistoric sites, diagnostic lithics and/or ceramics provide temporal information. The ceramics were compared to published type descriptions where available (such as DePratter 1991) or relied on general descriptions (such as Snow 1977).

Diagnostic projectile points were likewise compared to published type descriptions (such as Coe 1964 or Bullen 1975). Georgia has, however, borrowed heavily from neighboring states. Often the type descriptions are poor and frequently the materials are poorly recognized or duplicate types in other states. We have tried, where ever possible, to simplify rather than make more complex, the identification of points.

Analysis of the historic collections follow professionally accepted standards with a level of suitability to the quantity and quality of the remains. In general, the temporal, cultural, and typological classifications of historic remains follow such authors as Cushion (1976), Godden (1964, 1985), Miller (1980, 1991), Nöel Hume (1978), Norman-Wilcox (1965), Peirce (1988), Price (1970), South (1977), and Walton (1976). Glass artifacts are identified using sources such as Jones (1986), Jones and Sullivan (1985), McKearin and McKearin (1972), McNally (1982), and Vose (1975). Sutton and Arkush (1996) provide an excellent overview of a broad range of other historic material, although primary sources will typically be provided in the text if the remains require a more detailed analysis.

RESULTS OF SURVEY

Introduction

The cultural resources identified during the intensive survey of 1.066.02 ha, encompassing nine separate tracts consisted of 27 sites, 18 isolated occurrences, and three cemeteries (Table 26b).

The 27 sites recovered include six previously recorded sites (Table 25). Relocated sites include 9LI259, 9LI312, 9LI315, 9LI318, 9LI338, and 9LI375. Newly recorded sites include 9LI524, 9LI525, and 9LI526 in NRMU A9.1; 9LI517, 9LI518, and 9LI519 in NRMU A12.1; 9LI520, 9LI521, 9LI522, 9LI523, 9LI532, 9LI533, and 9LI534 in NRMU A12.2; 9LI507, 9LI508, 9LI509, 9LI514, and 9LI484 in NRMU B7.2; 9LI515, and 9LI516 in NRMU B7.3; 9LI513 in NRMU E6.3; 9LI510, 9LI511, 9LI512, 9LI527, 9LI528, and 9LI452 in NRMU E8.3; 9Ev116, 9EV117, 9EV118, 9EV119, 9EV120, 9EV121, 9EV122, and 9EV123 in NRMU F7.2; and 9LI529, 9LI530, and 9LI531 in NRMU F17.3. The size, component, quad map and eligibility recommendations for each site are shown in Table 26b.

Of the total sites, eleven are recommended as potentially eligible (or "indeterminate") for inclusion on the National Register. These sites include 9LI517, 9LI532, 9LI534, 9LI315, 9LI507, 9LI509, 9LI512, 9LI312, 9LI529, 9LI452, and 9LI484. Three of these sites are historic cemeteries, two are prehistoric sites, two are historic sites (including the historic Willie community), one is a railroad bed, one is an earthen dam, and one is a multicomponent site. Sites in walkover tracts NRMU E6.3 and F7.2 are considered not eligible by the Georgia State Historic Preservation Officer since, "the information that makes the site eligible for the National Register under Criterion 'D' is inaccessible due to the presence of unexploded ordnance" (letter from Mr. Richard Cloues, Deputy State Historic Preservation Officer, to Lt. Colonel Carey W. Brown, dated June 22, 1998). However, these sites can not be completely assessed and under these circumstances. it is difficult to sites are recommended as not eligible for inclusion on the National Register.

The isolated historic sites include 9EV118, 9LI318, 9LI338, 9LI513, 9LI514, 9LI516, 9LI519, 9LI521, 9LI525, 9LI526, 9LI528, 9LI530, 9LI531, and 9LI533. Sites 9LI515 and 9EV123 are isolated prehistoric occurrences. Isolated multicomponent sites include 9LI375 and 9LI508. None of these isolated occurrences, pending review of Fort Stewart and the Georgia State Historic Preservation Office, are considered eligible for inclusion on the National Register of Historic Places.

Sites Recorded in Survey Tract NRMU A9.1

Three sites were recorded in survey tract A9.1, which sits east of the Evans heliport and south of Georgia State Highway 144 (Figure 36). Included are an historic site and two isolated historic sites, all of which are located in the northeastern portion of the survey tract.

9LI524

Site 9LI524 is a 250 m² historic site located approximately 100 m south of the tank road that runs parallel to Georgia State Highway 144. The central UTM coordinates are N3534960 E452500 and the elevation is 9 m AMSL. The site is situated in a fairly disturbed area between a slight rise to the east, and large mounds of disturbed earth to the west. Modern military trash littered the site and surrounding area. Vegetation consisted of mixed hardwoods, planted pines, and sparse grasses. South of the site, the vegetation is more heavily forested with a dense underbrush.

Four pieces of clear glass were recovered from Shovel Test 5 on Transact 468 during shovel testing of NRMU A9.1 (Figure 37). Surface finds, located near Shovel Test N200 E210 and Test Unit 34, included a clear glass fragment and a piece of industrial stoneware. Additional shovel testing revealed a fragment of brown

Table 26b.
Archaeological Sites in All Survey Tracts

Site #	Component	Size	Quad Map	Eligibility
		Survey Tract NRMU A9.1		
9LI524	Historic site	250 m²	Trinity	Ineligible
9LI525	Isolated Historic find	1 m²	Trinity	Ineligible
9LI526	Isolated historic find	1 m²	Trinity	Ineligible
		Survey Tract NRMU A12.1		
9LI517	Multicomponent site	1,512 m²	Trinity	Indeterminate
9LI518	Historic site	1,200 m²	Trinity	Ineligible
9LI519	Isolated historic find	20 m²	Trinity	Ineligible
		Survey Tract NRMU A12.2		
9LI259	Historic site	4,200 m²	Limerick NW	Ineligible
9LI520	Historic site	2,800 m²	Trinity	Ineligible
9LI521	Isolated historic find	1 m²	Trinity	Ineligible
9LI522	Multicomponent site	400 m²	Trinity	Ineligible
9LI523	Multicomponent site	3,200 m²	Trinity	Ineligible
9LI532	Historic cemetery	69 m²	Limerick NW	Indeterminate
9LI533	Isolated historic find	1 m²	Limerick NW	Ineligible
9LI534	Multicomponent site	7,000 m²	Limerick NW	Indeterminate**
		Survey Tract NRMU B7.2		
9LI315	Historic site	4,800 m²	Taylors Creek	Indeterminate
9LI318	Isolated historic find	1 m²	Taylors Creek	Ineligible
9LI375	Isolated multicomponent find	1,500 m²	Taylors Creek	Ineligible
9LI484	Historic site	400 m²	Taylors Creek	Indeterminate
9LI499	Historic site	97,200 m²	Taylors Creek	Ineligible
9LI507	Prehistoric site	4,000 m²	Taylors Creek	Indeterminate
9LI508	Isolated multicomponent find	1 m²	Taylors Creek	Ineligible
9LI509	Prehistoric site	5,600 m²	Taylors Creek	Indeterminate
9LI514	Isolated historic find	1 m²	Trinity	Ineligible
		Survey Tract NRMU B7.3		
9LI515	Isolated prehistoric find	1 m²	Trinity	Ineligible
9LI516	Isolated historic find	1 m²	Trinity	Ineligible
		*Survey Tract NRMU E6.3**		
9LI513	Historic site	1 m²	Taylors Creek	Ineligible
		Survey Tract NRMU E8.3		
9LI338	Isolated historic find	900 m²	Willie	Ineligible
9LI510	Historic site	240 m²	Willie	Ineligible
9LI511	Isolated prehistoric find	1 m²	Taylors Creek	Ineligible
9LI512	Historic cemetery	988 m²	Taylors Creek	Indeterminate
9LI527	Historic site	2,100 m²	Willie	Ineligible
9LI528	Isolated historic find	1 m²	Willie	Ineligible
9LI452	Historic site	12,800 m²	Willie	Indeterminate
		*Survey Tract F7.2**		
9EV116	Historic site	3,825 m²	Glissons Millpond	Ineligible
9EV117	Multicomponent site	900 m²	Glissons Millpond	Ineligible
9EV118	Isolated historic find	1 m²	Glissons Millpond	Ineligible
9EV119	Historic site	4,900 m²	Glissons Millpond	Ineligible
9EV120	Historic site	800 m²	Glissons Millpond	Ineligible
9EV121	Historic site	2,800 m²	Glissons Millpond	Ineligible
9EV122	Historic site	1,650 m²	Glissons Millpond	Ineligible
9EV123	Isolated prehistoric find	1 m²	Glissons Millpond	Ineligible
		Survey Tract NRMU F17.3		
9LI312	Historic site	12,300 m²	Willie	Indeterminate
9LI452	Historic site	12,00 m²	Willie	Indeterminate
9LI529	Historic cemetery	9 m²	Willie	Indeterminate
9LI530	Isolated historic find	1 m²	Willie	Ineligible
9LI531	Isolated historic find	1 m²	Willie	Ineligible

* Sites found in these survey tracts have been designated ineligible by the Georgia State Historic Preservation Office. ** The Georgia SHPO does not concur with this recommendation.

fragments. Shovel tests at N210 E190 and N200 E190 were not excavated due to the presence of large disturbed piles of earth. The remainder of shovel tests were excavated to subsoil, with many containing mottled colored soils at the bottom depths. A 50 cm by 50 cm test unit was placed in a location central to the positive shovel tests and surface finds and was excavated to a level of 60 cm, where subsoil was encountered (Figure 37). Artifacts were recovered from 0-30 cm below the surface, including five brown glass fragments, an unidentified nail fragment, and a clear glass fragment. A total of 33 artifacts were recovered from this site.

Dark gray loamy sand (10YR4/1) was encountered to a depth of approximately 32 cm below the surface, followed by a thin (4 cm) layer of black loamy sand (10YR2/1). Dark gray sand (10YR4/1) occurred beneath the black loamy sand layer and was followed by brownish yellow sand (10YR6/8) subsoil. This site is located on Pooler fine sandy loam. The B horizon for this soil begins at 12.70 cm below the surface and extends to 1.42 m below the surface. The soil profile for the test unit suggests that the

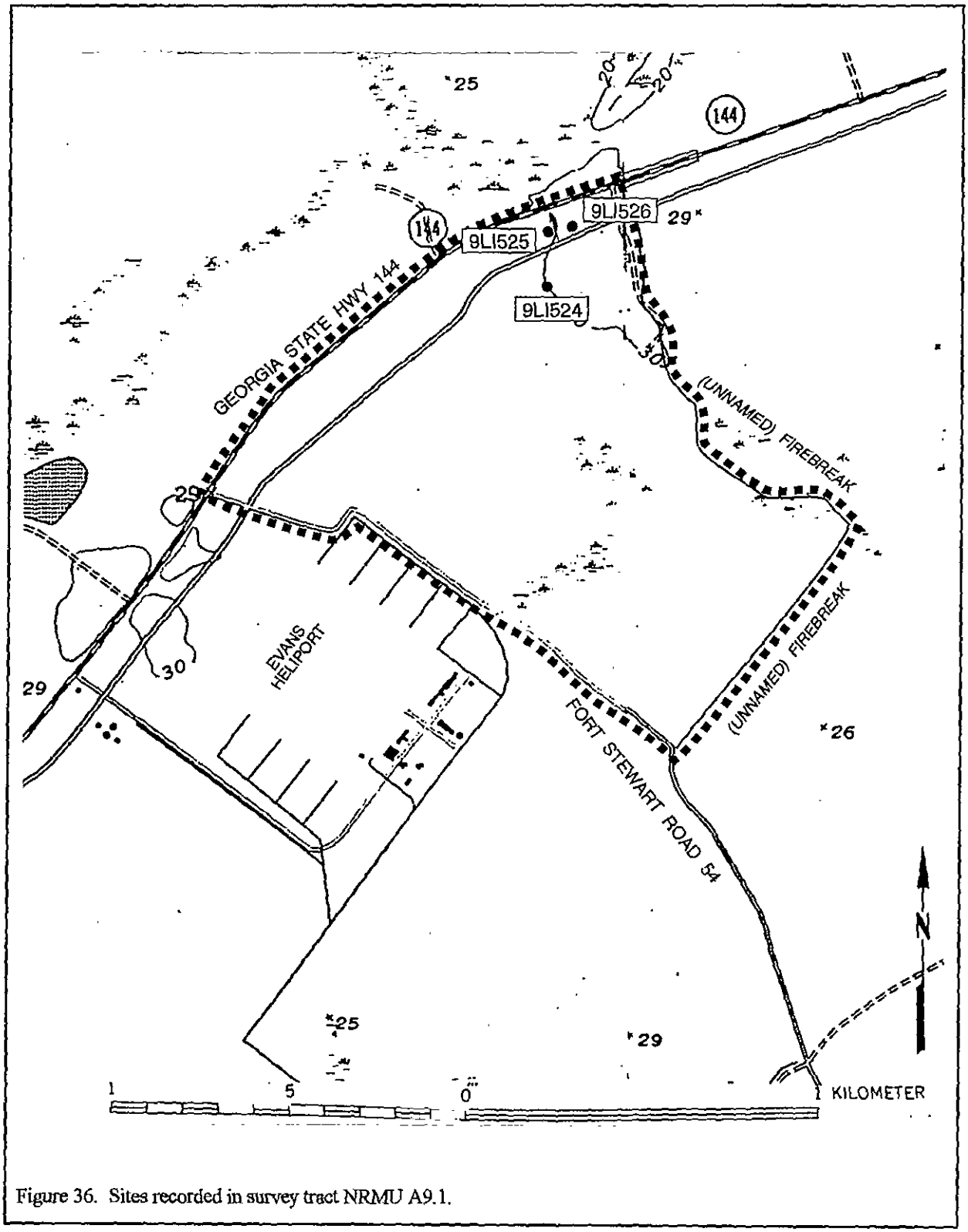

Figure 36. Sites recorded in survey tract NRMU A9.1.

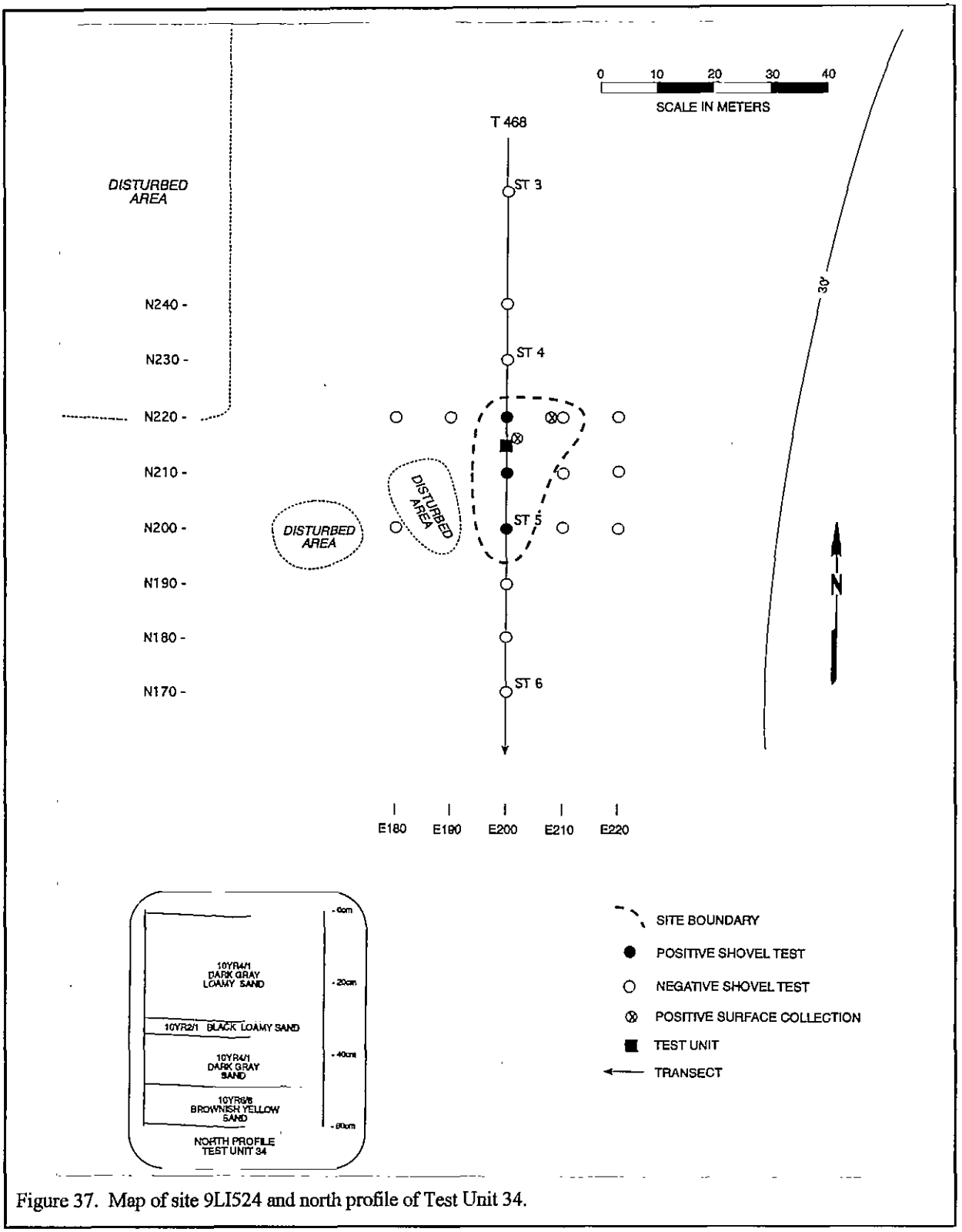

Figure 37. Map of site 9LI524 and north profile of Test Unit 34.

soils at this site have been subjected to redeposition. Site 9LI524 does not possess the data sets or integrity necessary to address issues presented by Campbell et al. (1996:214-230) and is therefore recommended as ineligible for inclusion on the National Register of Historic Places.

9LI525

Site 9LI525 is an isolated historic site consisting of two Herty cup fragments and measuring 1 m². It is located on the strip of land between Georgia State Highway 144 and the tank road parallel to the highway, about 40 m north of the tank road. Central UTM coordinates are N3535150 E452850 and the elevation is 9 m AMSL.

Investigation of this site was based on the surface collection of the two Herty cup fragments adjacent to Shovel Test 2 on Transect 470 . The area was relatively flat with mixed hardwoods and pine trees, and the ground cover was scorched from recent controlled burning.

Eight additional shovel tests were placed in a cruciform pattern (Figure 38) from Shovel Test 2, but no additional artifacts were recovered. This site is recommended as ineligible for inclusion on the National Register of Historic Places and no further work is recommended.

9LI526

Site 9LI526 is located near site 9LI525, approximately 30 m east of 9LI525 and 40 m north of the tank road parallel with Georgia State Highway 144. This site is also a 1 m² isolated historic site, consisting of a single Herty cup fragment, located adjacent to Shovel Test 2 on Transect 473. The central UTM coordinates are N3535200 E452640 and the elevation is 9 m AMSL. The vegetation consisted of mixed hardwoods and pines, and the ground cover was scorched from recent controlled burning.

Eight additional shovel tests placed in a cruciform pattern (Figure 38) revealed no other artifacts. This site is therefore recommended as ineligible for inclusion on the National Register of Historic Places.

Sites Recorded in Survey Tract A12.1

Three new sites were recorded in survey tract A12.1, located west of Evans Heliport and south of Georgia State Highway 144 (Figure 39). These include a multicomponent site, a historic site and an isolated historic site.

9LI517

Site 9LI517 is a multicomponent site located in the southern portion of survey tract NRMU A12.1 and adjacent to Fort Stewart Road 51, approximately 1.9 km southeast of the intersection of Fort Stewart Road 51 and Georgia State Highway 144. This road is used frequently by military vehicles and logging trucks. At the least, the edge of the site is damaged by traffic on this heavily used road. The site sits at the southwestern survey boundary (Fort Stewart Road 51) and an unnamed firebreak and may continue onto the other sides of both of these roads, areas which were not addressed by this survey.

The central UTM coordinates are N3531600 E450900 and the elevation is 9 m AMSL. The vegetation at the site includes a large mature oak, scrub oaks, sparse grasses, and pines. Shovel Test 5 on Transect 4, running west from the firebreak, revealed one secondary chert flake at 50 cm below the surface (Figure 40). Further testing demonstrated that the site was confined to an area measuring 1,512 m² between Transect 1 and Transect 5. Out of 23 additional shovel tests, three additional positive tests and a positive surface collection contained three historic artifacts and two prehistoric artifacts. The historic artifacts, including one annular pearlware, an aqua glass fragment and a blue edged pearlware, were located in the first 20 cm of fill of the shovel tests, while the prehistoric artifacts, including a small prehistoric sherd and a secondary chert flake, in general were deeper than 30 cm below the surface.

The test unit, placed at N185 E205, reached a depth of 100 cm below the surface. Four tertiary flakes and a secondary quartz flake were recovered from 10 to 80 cm below the surface. The B horizon for Pooler soils generally occurs at 12.7 cm to 1.42 m below the surface and consists of sandy clay and sandy clay loam. The test unit soils consisted of dark grayish brown (10YR4/2) loamy sand to 15 cm and yellowish brown (10YR5/6) sand to a depth of 100 cm. These soils do not seem to be deflated. A total of 11 artifacts were recovered from 9LI517, including seven prehistoric artifacts and four

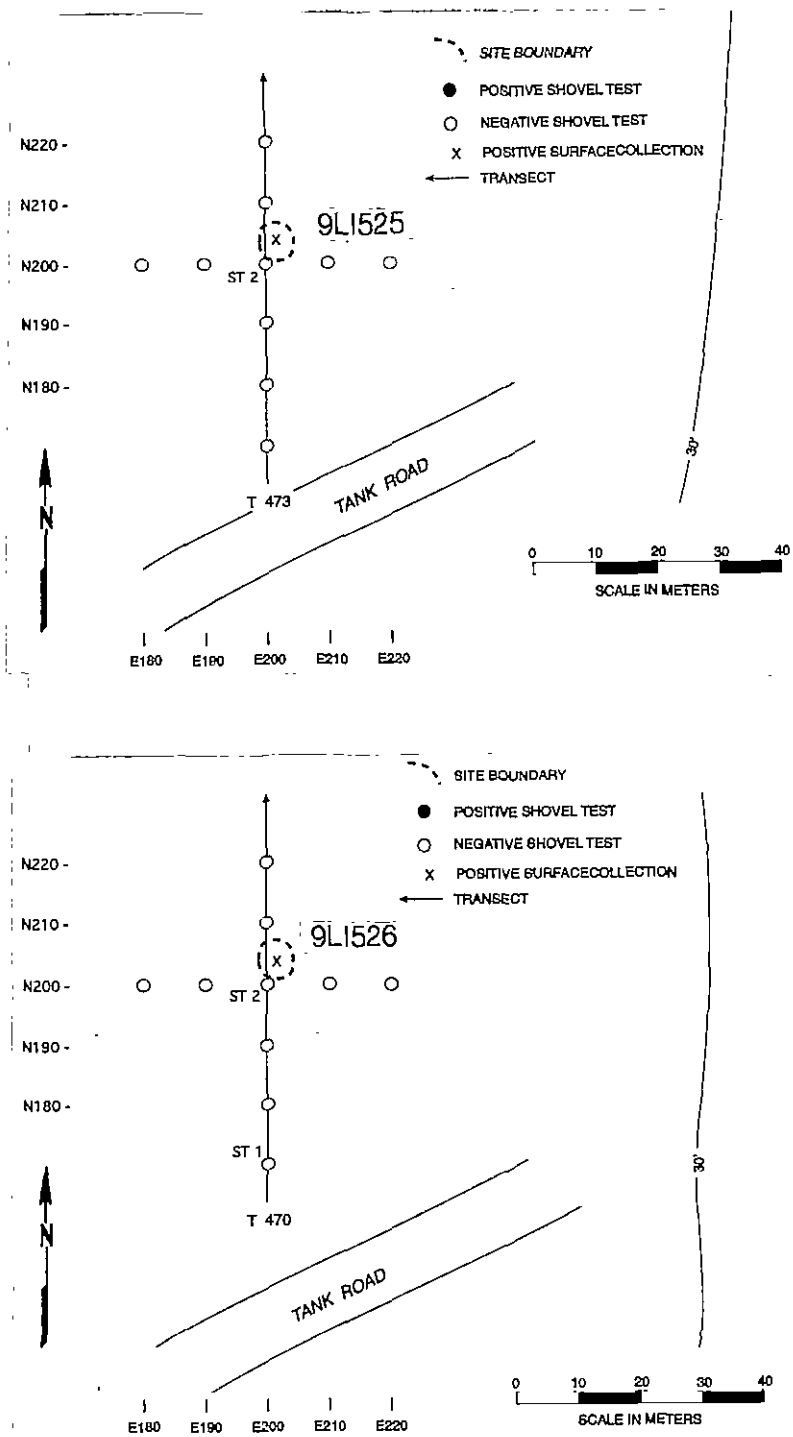

Figure 38. Maps of sites 9LI525 and 9LI526

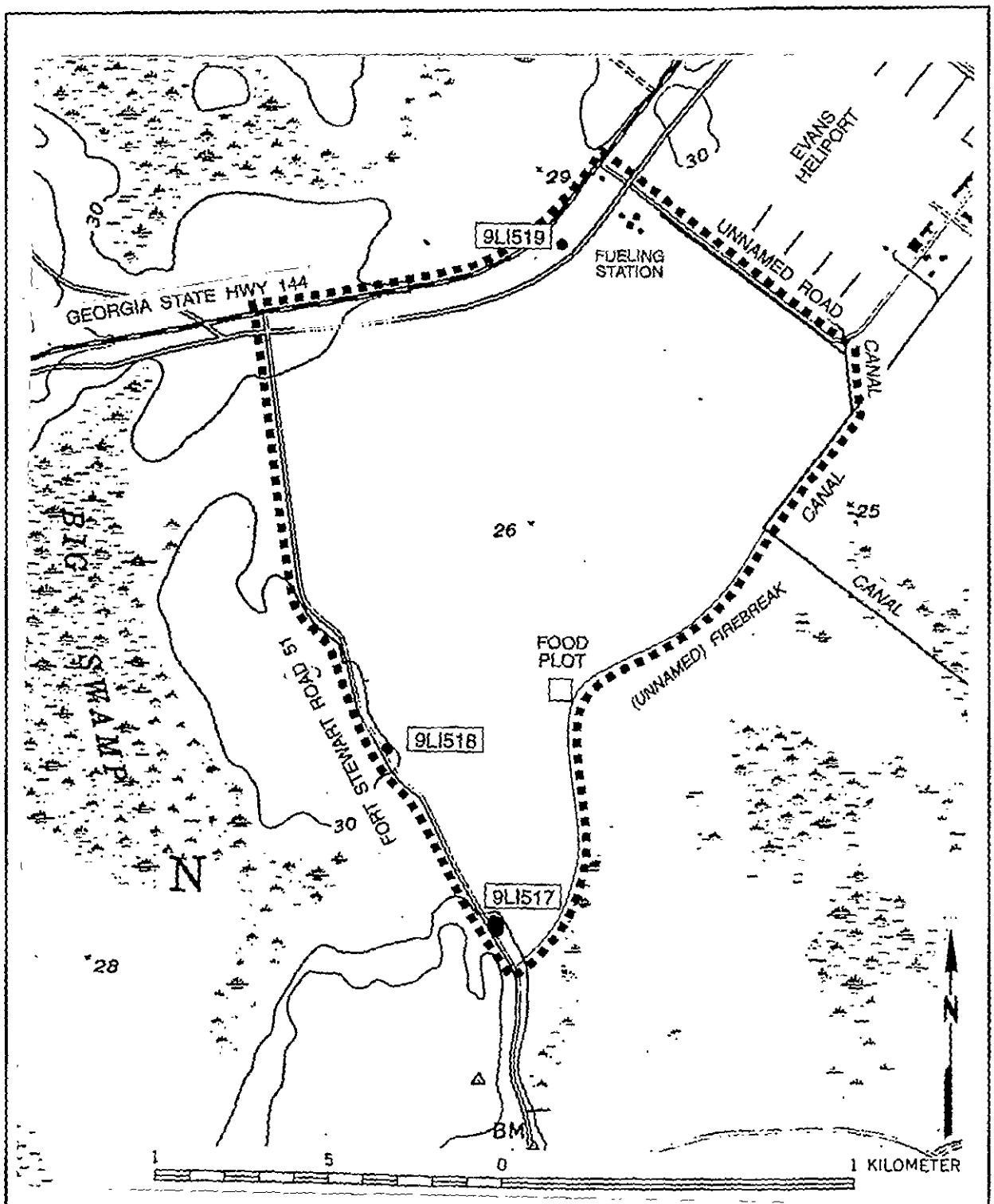

Figure 39. Sites recorded in survey tract NRMU A12.1

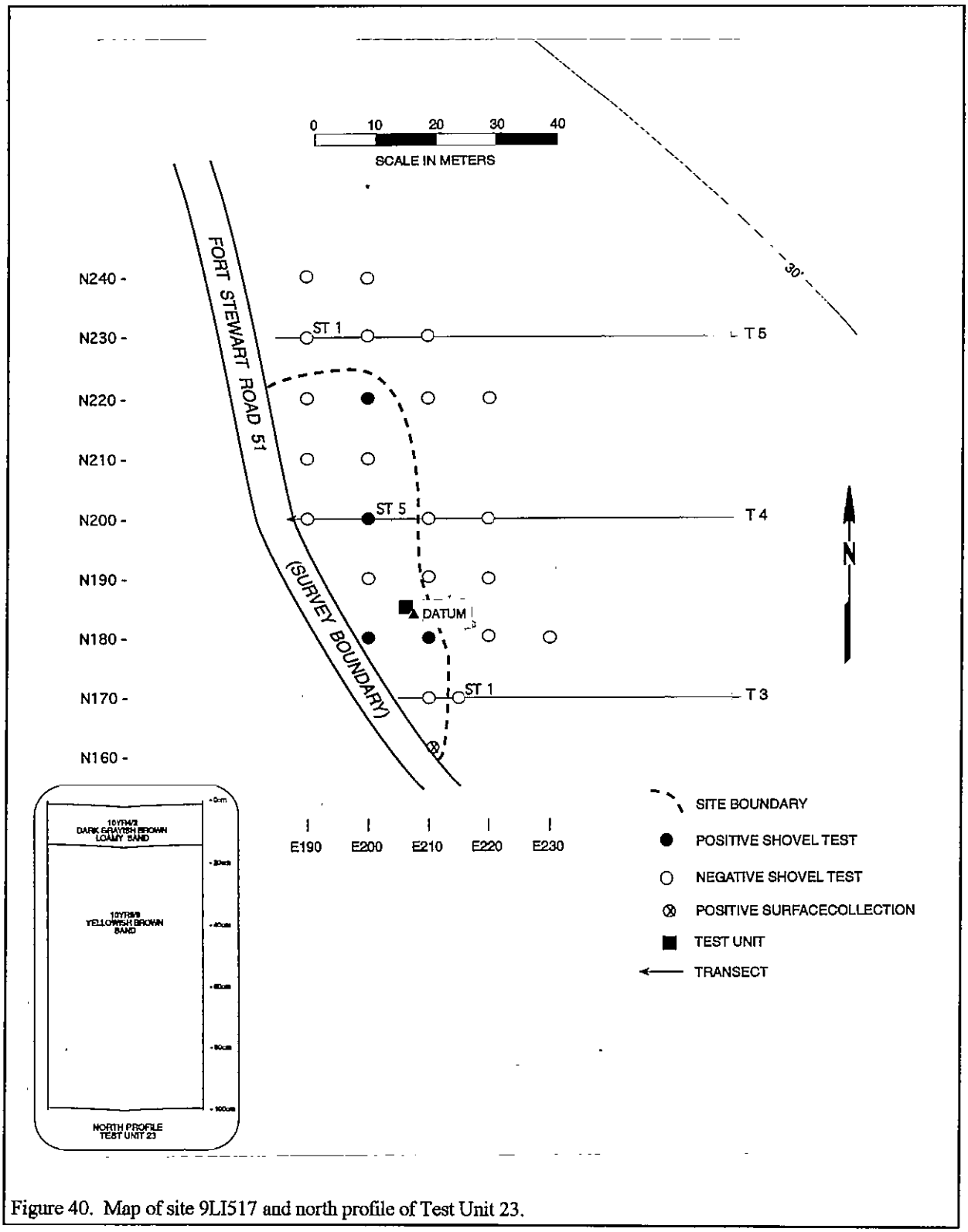

Figure 40. Map of site 9LI517 and north profile of Test Unit 23.

historic artifacts.

Although the edges of site 9LI517 near Fort Stewart Road 51 appear to be damaged, the site is recommended as potentially eligible (indeterminate) for the National Register of Historic Places because it is stratified and the prehistoric component appears to be intact and possess integrity. The prehistoric lithic artifacts from the site do not give an indication of the duration or phase of the site, although additional testing may provide better evidence for the duration of occupation at the site, the associated phase, and the types of activities that were undertaken at the site. Testing in areas adjacent to NRMU A12.1 will also provide a better understanding of the boundaries of the site. Site 9LI517 may address significant research questions relating to the prehistoric use of lithic resources in the area, and the patterning and types of sites located near the Canoochee River and its associated drainages.

9LI518

Site 9LI518 is located near Fort Stewart Road 51 on a slight incline that slopes into a swamp (Figure 41), approximately 1.35 km southeast of the intersection of Georgia State Highway 144 and Fort Stewart Road 51. The vegetation consists of mixed hardwoods, pines, and cypress trees. The site is located on Pooler soils, which generally have water tables at less than 30.5 cm below the surface, west of a swampy area. Shovel tests on the edge of the swamp reached water from 50 to 75 cm below the surface. The test unit, placed at N205 E205, extended to a depth of 50 cm below the surface. The B horizon was reached at 25 cm below the surface and consisted of a brownish yellow (10YR6/6) sand. The A horizon was a grayish brown (10YR5/2) sandy loam. Pooler soils generally consist of fine sandy loam to a depth of 12.70 cm, and sandy clay to sandy clay loam up to 1.42 m, which is consistent with the soil profile for the test unit.

Site 9LI518 appears to represent a structure located on the 1918 Hinesville USGS map (see **Conclusions** for further discussion of historic maps). The site was littered with both modern and military trash.

Shovel test 1 on Transect 24, running east, contained a clear glass fragment, a Herty cup fragment and an unidentified iron fragment, all found at a depth of less than 30 cm below the surface (Figure 41). Artifacts recovered from the additional six positive shovel tests were also located at depths less than 30 cm below the surface. Test Unit 24 contained artifacts only in the first 10 cm of fill. A total of 62 artifacts were recovered from the shovel tests and positive surface collections at N210 E200 and N210 E210, with 40 artifacts collected and excavated from N210 E210. The artifacts represent a range of historic materials, from modern window glass to whiteware sherds, and a single prehistoric sherd (Table 27). A medicine bottle was recovered from the surface at N210 E210. The wire cut nails gives a terminus post quem date of 1875 for site 9LI518, when wire nails became commonly available in the South, in places such as Louisiana (Wells 1998: 91). The Herty cup fragments

Table 27
Artifacts Recovered from 9LI518

Provenience	Number and Description
N180 E210	4 wire cut nails
N190 E210	1 undecorated whiteware
	1 alkaline glazed stoneware
	1 burnt stoneware
	1 aqua glass
	1 Herty cup fragment
N200 E200	1 clear glass
	1 Herty cup fragment
	1 UID iron fragment
N200 E210	2 aqua glass
	3 manganese glass
N200 E220	1 burnt refined earthenware
N210 E200 sur.	1 clear glass bottle
N210 E200	1 clear glass
	1 Herty cup fragment
N210 E210 sur.	1 poly hand painted whiteware
	4 burnt earthenware
	1 melted glass
	1 window glass
	1 small prehistoric sherd
N210 E210	1 undecorated whiteware
	13 burnt refined earthenware
	1 milk glass
	2 clear glass
	5 melted glass
	1 window glass
	8 machine cut nails
	1 UID iron
TU 24 surface	1 burnt earthenware
TU 24 0-10 cm	2 clear glass, 2 aqua glass
TU 24 0-10 cm	1 Herty cup fragment

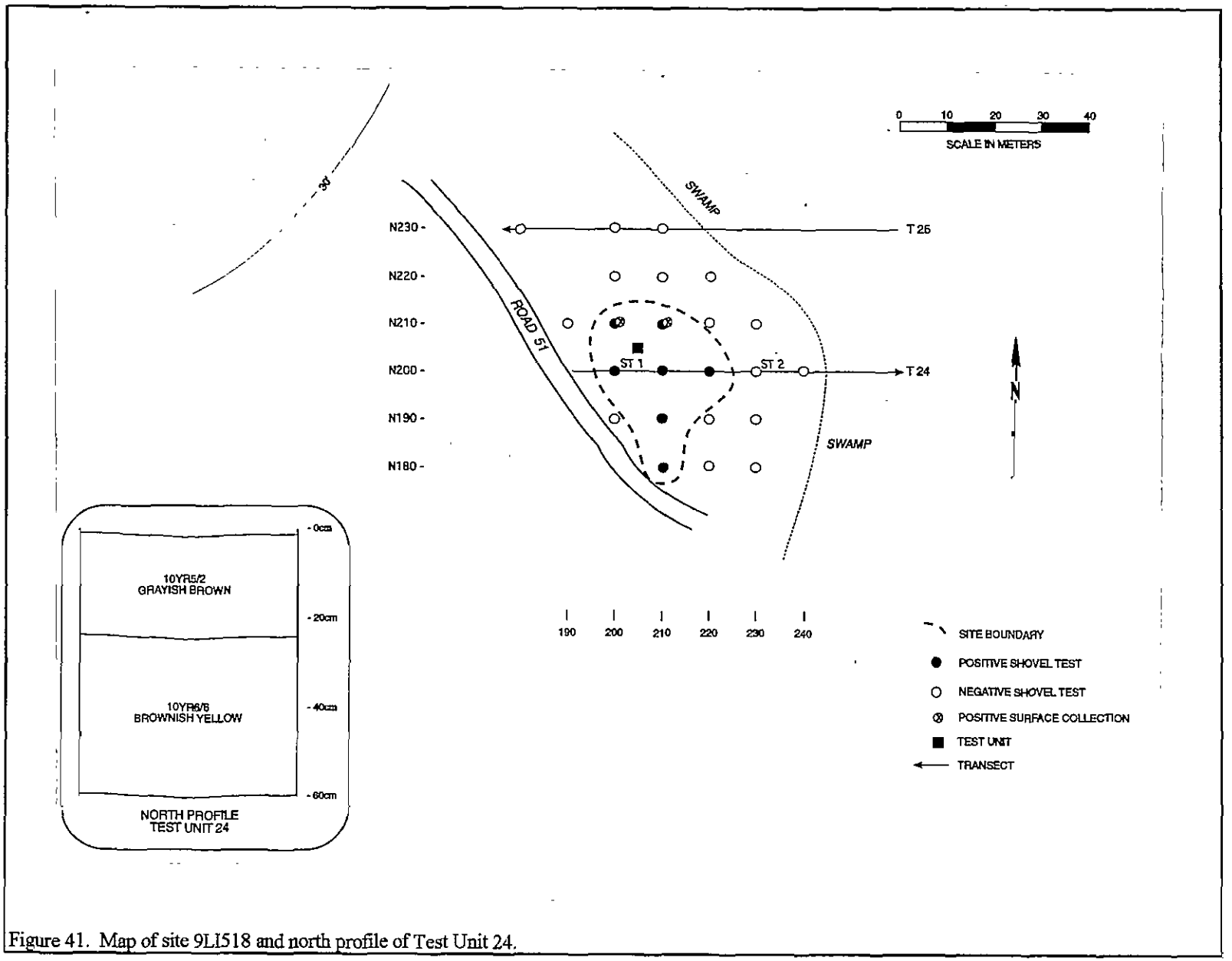

Figure 41. Map of site 9LI518 and north profile of Test Unit 24.

also indicate that the site was occupied through the early twentieth century. A total of 66 historic artifacts and one prehistoric artifact were recovered from 9LI518.

The central UTM coordinates for the site are N3532090 E450590 and the elevation is 9 m AMSL. The site extends across Transect 24, measuring 1,200 m².

The data sets at 9LI518 include kitchen group artifacts, nails and window glass in the architecture group, Herty cup fragments, and a single prehistoric sherd. While these data sets do represent a significant artifact scatter across the site, presumably the information that can be gathered on artifact scatters at this site has been collected during shovel testing.

Site 9LI518 lacks other data sets, including, construction hardware, architectural ruins, furniture hardware, clothing and personal group artifacts, construction tools, or farm tools. Subsistence data sets, such as ethnobotanical and faunal remains, are also absent from the site. Without these data sets, the types of research questions site 9LI518 could answer are limited. For example, with so few architectural artifacts, questions regarding the possible function of the site are difficult to address.

In addition to possible disturbance caused by road grading, the site's surface was also littered with military and modern trash, such as MREs and Coca-Cola cans. These types of disturbance suggest that data sets at site 9LI518 are not well preserved, further limiting the site's ability to address significant research questions.

Based on these analyses, site 9LI518 is recommended as ineligible because it does not possess data sets necessary to address significant research questions, and has not retained integrity necessary for inclusion on the National Register of Historic Places.

9LI519

Site 9LI519 is located 40 m north of the tank road that runs parallel to Georgia State Highway 144, approximately 200 m northwest of the fueling station near Evans Heliport (Figure 42). The isolated historic occurrence contained three undecorated whiteware fragments. The occurrence is situated between two disturbed piles of earth. Shovel Test 1 on Transect 74, which ran north from the tank road, produced one undecorated whiteware fragment, and Shovel Test N200 E180 produced two additional undecorated whiteware sherds. The 14 shovel tests produced a range of soils, including grey and dark grey sandy loams to red colored sandy clays. The B horizon was encountered between 20 and 40 cm below the surface. The site is located on Ocilla soils, which generally have a B horizon that begins at 86.4 cm below the surface and consists of a sandy loam to a sandy clay loam. The difference in soils excavated and expected indicates that this site was probably disturbed, most likely during construction of Georgia State Highway 144 and the tank road.

The central UTMs are N3533630 E451090 and the elevation is 9 m AMSL. The site measures 20 m². 9LI519 is recommended as ineligible for the National Register of Historic Places because it does not possess the data sets necessary for significant research questions. No further testing is suggested.

Sites Recorded in Survey Tract NRMU A12.2

Seven sites, including one previously recorded site, were identified in NRMU A12.2. These include two historic sites, two isolated historic finds, a historic cemetery, and three multicomponent sites (Figures 43).

9LI259

Site 9LI259 was first recorded in 1983 by Professional Analysts. It was located in a fire lane with plowed edges located between swampy areas. Artifacts included two medicine bottles, a salt glazed bottle top, a brick fragment, a salt glazed jug bottom fragment, two ironstone fragments, a whiteware fragment, and clear and purple glass fragments.

This site was re-located based on the presence of the fire lane and the location shown on the USGS map. It should be noted however, that the swamp discussed in the site file was not located near the fire break, but far enough away so that it was not located near the extent of the site. 9LI259 was located to the west of a firebreak, and a large depression that ran to the firebreak was located northeast of the site. The topography is relatively flat and vegetation consists of mixed hardwoods, planted pines, and scrub oaks. The central UTMs are N3532550 E452800 and the elevation is 9 m AMSL. Site 9LI259 crosses two transects and measures 4,200 m².

The site was first relocated on Transect 287, running east from Fort Stewart Road 51B, at Shovel tests

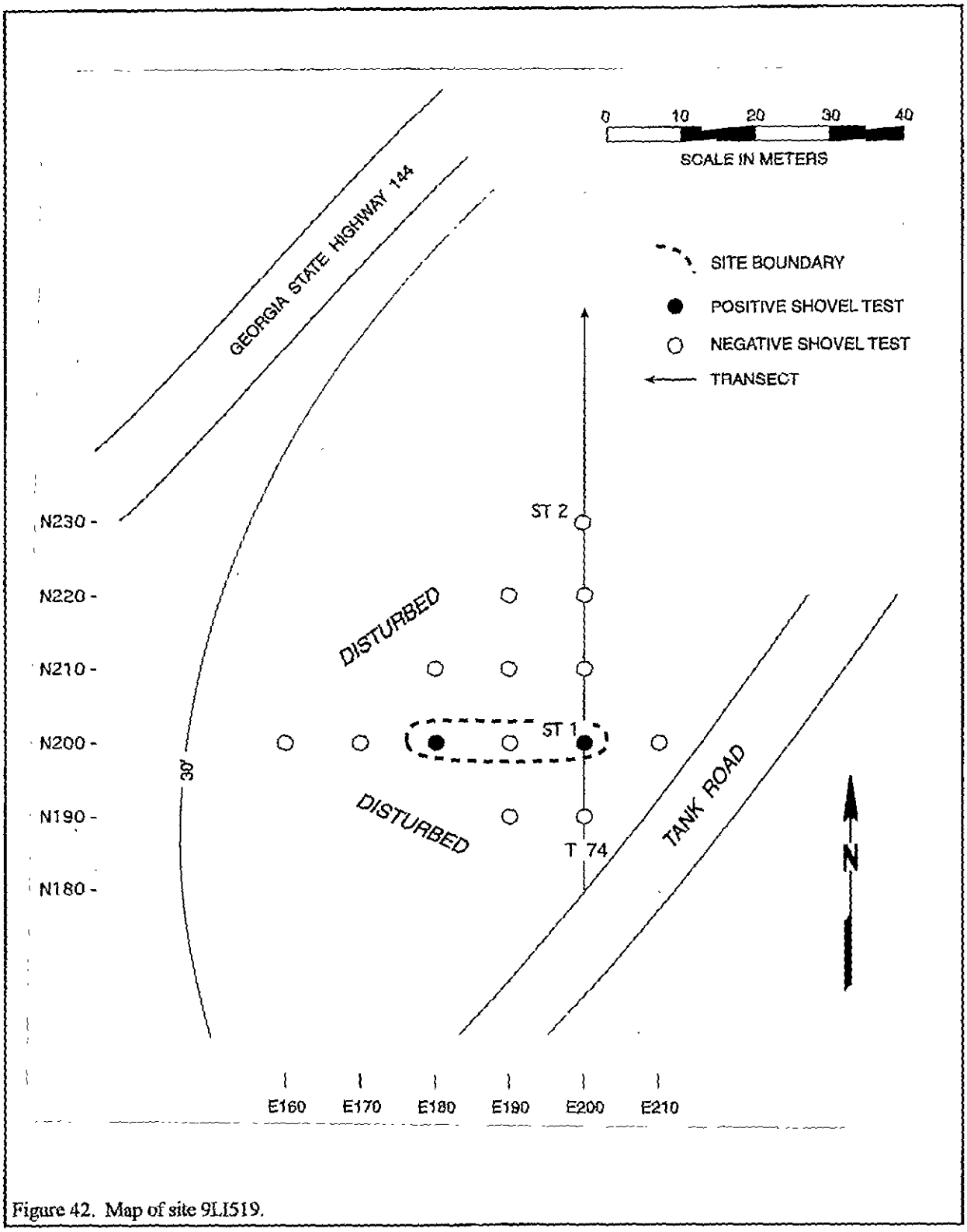

Figure 42. Map of site 9LI519.

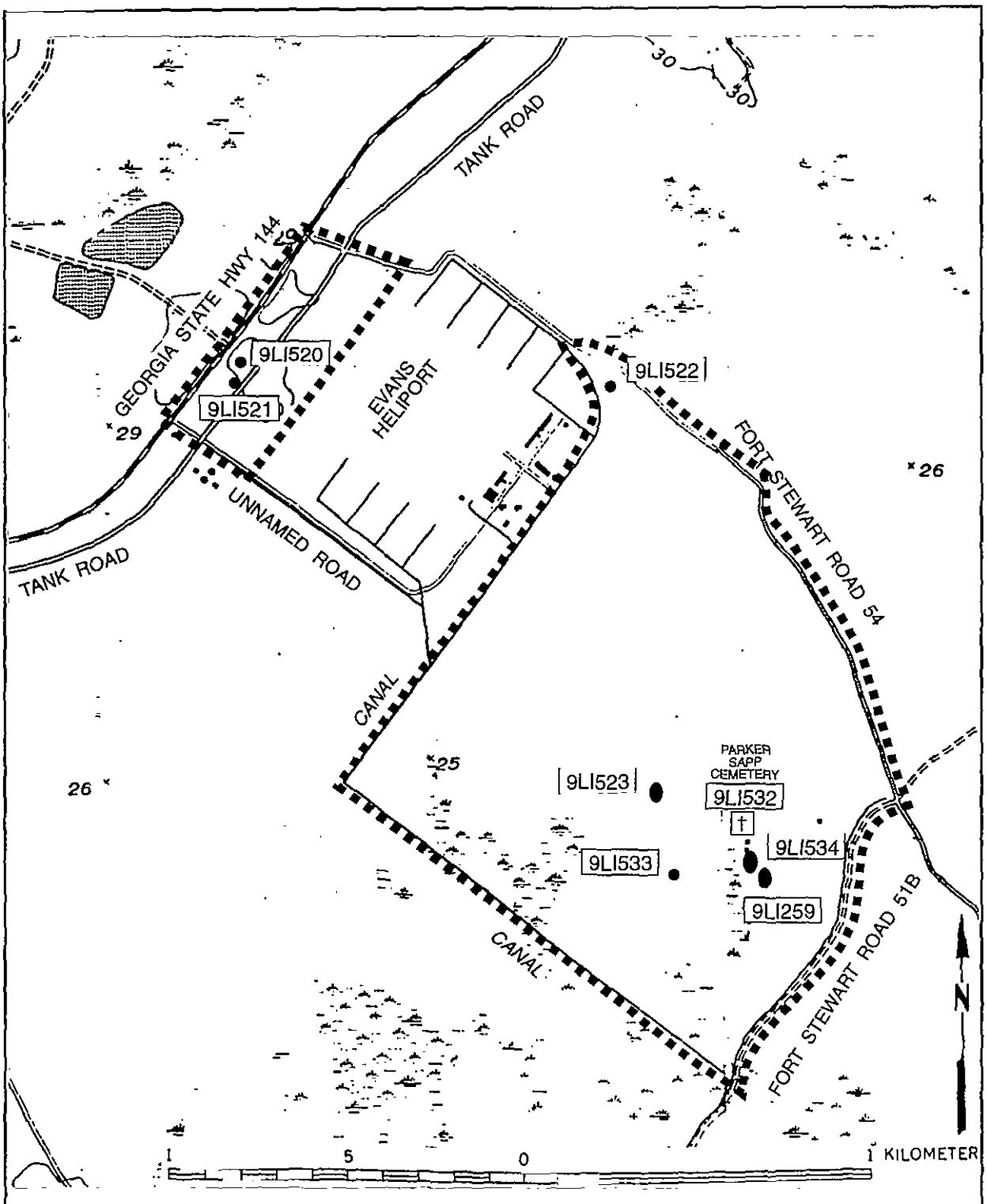

Figure 43. Sites located in NRMU A12.2.

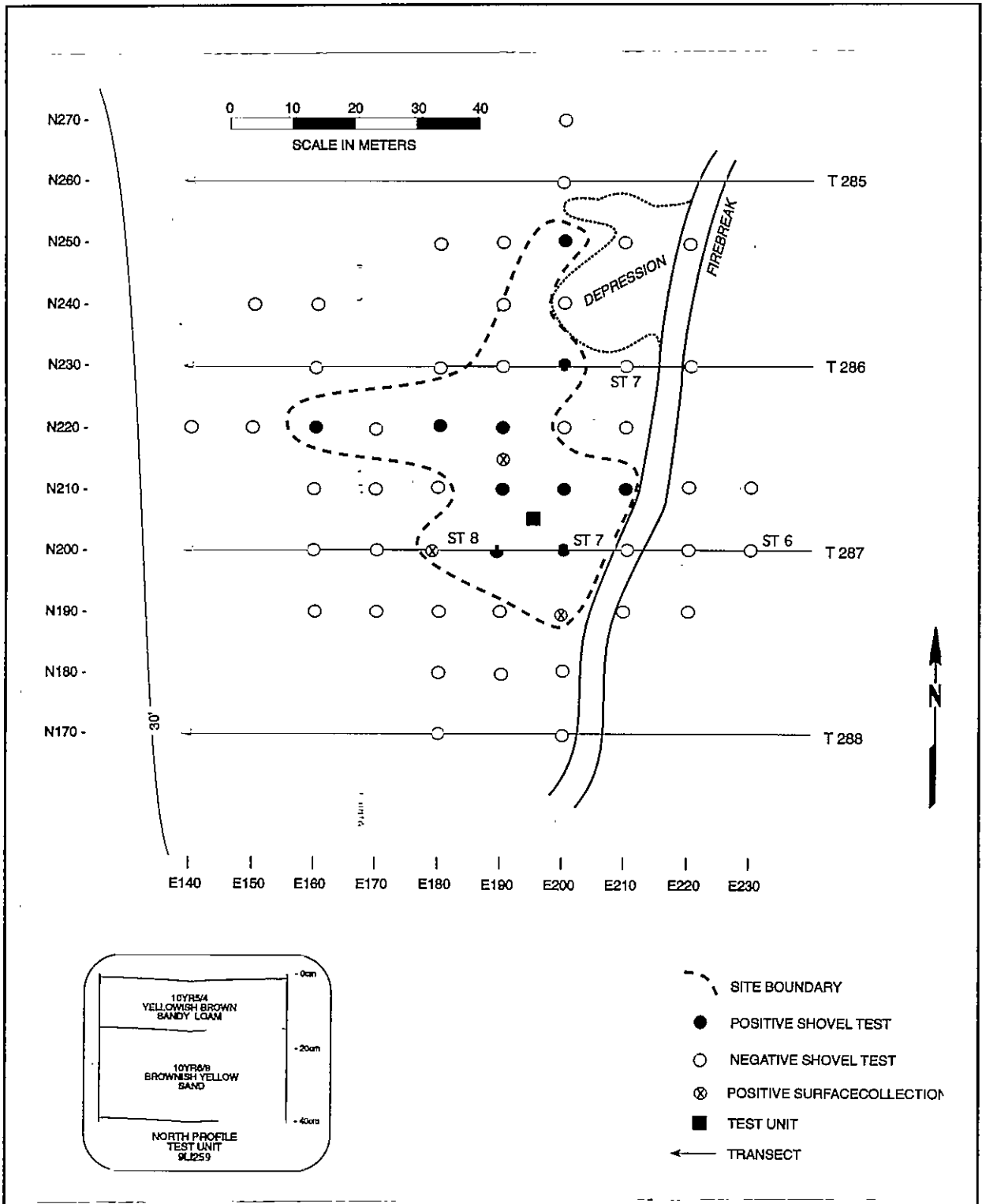

Figure 44. Map of Site 9LI259 and north profile of Test Unit.

7 and 8 (Figure 44). Additional shovel tests, placed in a cruciform patterns off of the positive shovel tests, revealed eight additional positive shovel tests and three positive surface collections. The artifacts include a number of historic ceramic and glass fragments, in addition to a single secondary chert flake (Table 28). The historic artifacts provide only a general idea of the historic occupation of the site, most likely dating from the late nineteenth and early twentieth century. The prehistoric artifacts do not give an indication of the period of occupation. The small ceramic sample does provide a mean ceramic date of 1831.82 (Table 29). A total of 21 artifacts were recovered from 9LI259, and were evenly distributed among the shovel tests and test unit.

Test Unit 31, located at N205 E195, was dug to a depth of 40 cm, with the B horizon, a brownish yellow (10YR5/4) sand, encountered at 15 cm below the surface. Artifacts were recovered only from the first 10 cm of fill. The A horizon, a yellowish brown (10YR5/4) sandy loam extended to 15 cm, although Albany soils, which the site is located on, generally have an A horizon that extends 1.24 m below the surface. This suggests that

Table 28.
Artifacts Recovered from 9LI259

Provenience	Description
N190 E200	1 secondary chert flake
N200 E180 sur.	1 undecorated whiteware
N200 E180	1 light green glass
N200 E190	1 undecorated pearlware
N200 E200	1 undecorated whiteware
N210 E190	1 undecorated creamware
N210 E200	1 undecorated pearlware, 1 light green glass
N210 E210	1 white porcelain
N215 E190 sur.	1 undecorated whiteware
N220 E160	1 blue edged pearlware, 1 black glass
N220 E180	1 undecorated whiteware, 2 black glass
N220 E190	1 clear glass
N230 E200	1 poly hand painted pearlware, 1 blue transfer printed whiteware
N250 E200	1 green transfer printed whiteware
TU 31 0-10 cm	1 black glass, 1 aqua glass

the soil in this area has been depleted. The location of this site corresponds with a structure located on the historic USGS maps and the 1958PR73 Limerick NW USGS map.

These sparse data sets for site 9LI259 include both prehistoric and historic artifacts. The historic artifacts include 11 dateable ceramics with a mean ceramic date of 1831.82, a porcelain fragment, and eight glass fragments. The prehistoric data sets include a single secondary chert flake.

Table 29.
Mean Ceramic Date for 9LI259

Ceramic	fi	xi	fi x xi
Creamware, undecorated	1	1791	1791
Pearlware, poly hp	1	1805	1805
Pearlware, edged	1	1805	1805
Pearlware, undecorated	2	1805	3610
Whiteware, blue tp	1	1848	1848
Whiteware, non-blue tp	1	1851	1851
Whiteware, undecorated	4	1860	7440
	11		20150

20,150 +11=1831.82

The historic data sets are limited to glass and ceramic artifacts, representing only one class of historic artifacts, the Kitchen Artifact group, (South 1977:95-96), which limits research questions that can be addressed. Sites capable of answering significant research questions generally contain more than one artifact group, such as Architectural group artifacts. For example, no features, architectural remains, brick fragments, construction hardware, window glass, or nails were recovered from this site. The lack of these artifacts limits any understanding of the function of the site, and narrows any potential for chronological control. There are also no tobacco pipes, buttons, buckles, beads, coins, or other personal items, which would also be expected at an intact historic site. Subsistence remains, such as ethnobotanical and faunal remains are also absent from site 9LI259. In addition, no construction, farming, or fishing tools were recovered.

Although early sites such as this one are unusual for Fort Stewart, the lack of data sets at this site makes it unlikely that the site can address important research questions, such as the early settlement of the Fort Stewart area. In particular the absence of any architectural group artifacts restricts the type of research questions that can be asked about settlements.

A number of factors also address the integrity at site 9LI259. First, firebreaks running through the site and

a large depression attribute to the disturbance that has taken place. Second, the soils, when compared to the generalized profiles for this area, have been severely depleted by more than a meter, also suggesting that many features have also been displaced. Third, artifacts, found in the first 10 cm of fill, are mixed, with prehistoric and historic artifacts found at the same level.

Based on this analysis, site 9LI259 is recommended as ineligible for the National Register of Historic Places because it does not appear to possess the data sets or integrity necessary to address significant research questions.

9LI520

Site 9LI520, a historic site, is located between Georgia State Highway 144 and the parallel tank road (Figure 45), approximately 200 m northeast of the intersection of an unnamed road that runs to Evans Heliport and GA State Highway 144. The area is relatively flat with a mixture of hardwoods, planted pines, and some scrub oaks. Two disturbed areas near N150 E180-190 and adjacent to the tank road, consisting of large push piles of earth approximately a meter high, prevented shovel testing in these areas. Central UTM coordinates for site 9LI520 are N3533910 E451220 and the elevation is 9 m AMSL.

The site is located in an area presumed to have been disturbed by the proximity of the tank road, and the construction of the shoulder of the highway, and ditch work. The soils also exhibit evidence of disturbance. Site 9LI520 is located on Ocilla soils, which generally have a loamy fine sand A horizon extending to 86.4 cm and a B horizon of sandy loam to sandy clay loam extending to 1.8 m below the surface. Soils in Test Unit 26, a 50 by 50 cm unit, consisted of a gray (10YR5/1) loam to 20 cm, a brown (10YR5/3) loamy sand to 30 cm and pale brown (10YR6/3) sand to 40 cm, the extent of excavation and presumably the B horizon. The excavated soils suggest that the area has undergone erosion and redeposition.

The site was tested using a cruciform pattern with Shovel test 3 on Transect 224 as the center point. An additional 48 shovel tests, other than those originally excavated on the transect, and three positive surface collections produced 75 artifacts. Five artifacts were recovered from the test unit excavation, producing a total of 80 historic artifacts recovered from 9LI520. Based on the shovel tests and surface collections, the site measures 2,800 m².

Artifacts recovered from the site include ceramics, glass, nail fragments, and hardware fragments, suggesting an occupation during the late nineteenth to early twentieth century, with a mean ceramic date of 1858.40 (Table 30). A number of the artifacts' manufacturers and dates of manufacture were determined from makers marks and other identifying features. A Duke's mayonnaise jar was recovered from the surface of Shovel Test N170 E190 and measures 13.34 cm in height. A small white undecorated porcelain bowl, mended from two pieces, measures 6.35 cm in height with a rim diameter of 14.61 cm, has "BAUER" imprinted on the bottom of the bowl. Bowls of this type were made in Atlanta, Georgia before 1909 by John Andrew Bauer (Lehner 1988:39). The undecorated whiteware fragment at N190 E210 is imprinted with "(ED)WIN M. K(NOWLES), the maker's mark for the Edwin M. Knowles China Company from East Liverpool, Ohio and dates from ca. 1925-1931 (Kovel and Kovel 1986:172). Other artifacts recovered from the site are summarized in Table 31.

Table 30.
Mean Ceramic Date for 9LI520

Ceramic	fi	xi	fi x xi
Whiteware, poly hp	2	1848	3696
Whiteware, undecorated	13	1860	24180
	15		27876

2,7876 ÷15=1858.40

The location of site 9LI520 is consistent with the location of a structure shown on the 1918 Hinesville USGS map. The data sets recovered are consistent with those expected for an early twentieth century house site, which indicates that the structure on the 1918 map represents a house. As discussed above, data sets at 9LI520 include kitchen group artifacts, nails in the architecture group, and miscellaneous hardware artifacts in the Activities group. While these data sets do represent a significant artifact scatter across the site, presumably the information that can be gathered on artifact scatters at this site has been collected during shovel testing.

Site 9LI520 lacks other data sets, including window glass, construction hardware, brick fragments,

Table 31.
Artifacts Recovered from 9LI520

Provenience	Description
N160 E180	1 undecorated whiteware
N160 E190	1 aqua glass, 7 UID nail fragments, 2 bolt fragments, 4 links of chain
N170 E190 sur.	1 clear whole glass jar
N170 E190	1 milk glass, 1 bright light green glass, 1 clear glass
N170 E200 sur.	2 undecorated white porcelain
N170 E200	2 undecorated whiteware, 1 wire fragment
N180 E190	1 undecorated whiteware, 1 milk glass, 1 light green glass, 2 aqua glass, 4 clear glass
N180 E200	1 brown glass
N190 E200	2 undecorated whiteware
N190 E210	2 UID nail fragments
N190 E220	1 UID iron
N200 E200	3 undecorated whiteware, 2 poly handpainted whiteware, 2 aqua glass, 2 clear glass
N210 E180	1 undecorated whiteware, 1 milk glass
N210 E190 sur.	1 clear glass whole bottle
N210 E190	1 burnt refined earthenware, 15 clear glass, 1 UID iron fragment
N220 E190	2 clear glass
N220 E200	1 undecorated whiteware, 3 clear glass, 1 brass nut
N230 E190	1 undecorated whiteware, 1 aqua glass, 1 clear glass, 2 UID nail fragments
TU 26 0-10 cm	1 burnt porcelain, 1 UID nail fragment
TU 26 10-20 cm	1 clear glass, 1 UID nail fragment
TU 26 20-30 cm	1 undecorated whiteware

architectural ruins, furniture hardware, clothing and personal group artifacts, construction tools, or farm tools.

Subsistence data sets, such as ethnobotanical and faunal remains, are also absent from the site. Without these data sets, the types of research questions site 9LI520 could answer are limited. For example, with so few architectural artifacts, questions regarding the possible function of the site are difficult to address. In addition, the data sets present at the site do not appear to provide precise chronological control, which would be needed to address research questions.

In addition to the disturbance caused by highway construction and soil erosion and redeposition, the site's surface was also littered with modern trash, such as the brown glass recovered from Shovel Test N180 E200 and a modern liquor bottle recovered from the surface of Shovel test N210 E190. These types of disturbance suggest that data sets at site 9LI520 are not well preserved, further limiting the site's ability to address significant research questions.

Based on these analyses, site 9LI520 is recommended as ineligible because it does not possess data sets necessary to address significant research questions, and has not retained integrity necessary for inclusion on the National Register of Historic Places.

9LI521

Site 9LI521 is an isolated historic occurrence located between Georgia State Highway 144 and the parallel tank road, approximately 200 meters east of the intersection of GA State Highway 144 and the unnamed road that leads to Evans Heliport. The surrounding area is relatively flat, with mixed hardwoods and pines and a dense underbrush of briars. Central UTM coordinates for 9LI521 are N3533830 E451280 and the elevation is 9 m AMSL.

At Shovel Test 1, Transect 225, running north from the tank road, a clear glass fragment and a wire cut nail fragment were recovered. Further shovel testing in a cruciform pattern from this shovel test revealed no artifacts, limiting the occurrence boundary to 1 m by 1 m in diameter (Figure 46). This site is recommended as not eligible for inclusion on the National Register of Historic Places because it does not possess the necessary data sets and no further work is recommended.

9LI522

Site 9LI522 is located in a very disturbed area, used by logging trucks and military vehicles, approximately 80 m east of Evans Heliport and 80 m west of Fort Stewart Road 54. The site is located on a slight rise in a cleared area that slopes down toward two unnamed dirt roads on the east and west sides of the site (Figure 47). The surrounding vegetation consists of mixed hardwoods, pines and sparse grasses. Central UTM coordinates for the site are N3533990 E452400 and the elevation is 9 m AMSL.

The site was first located based on a positive

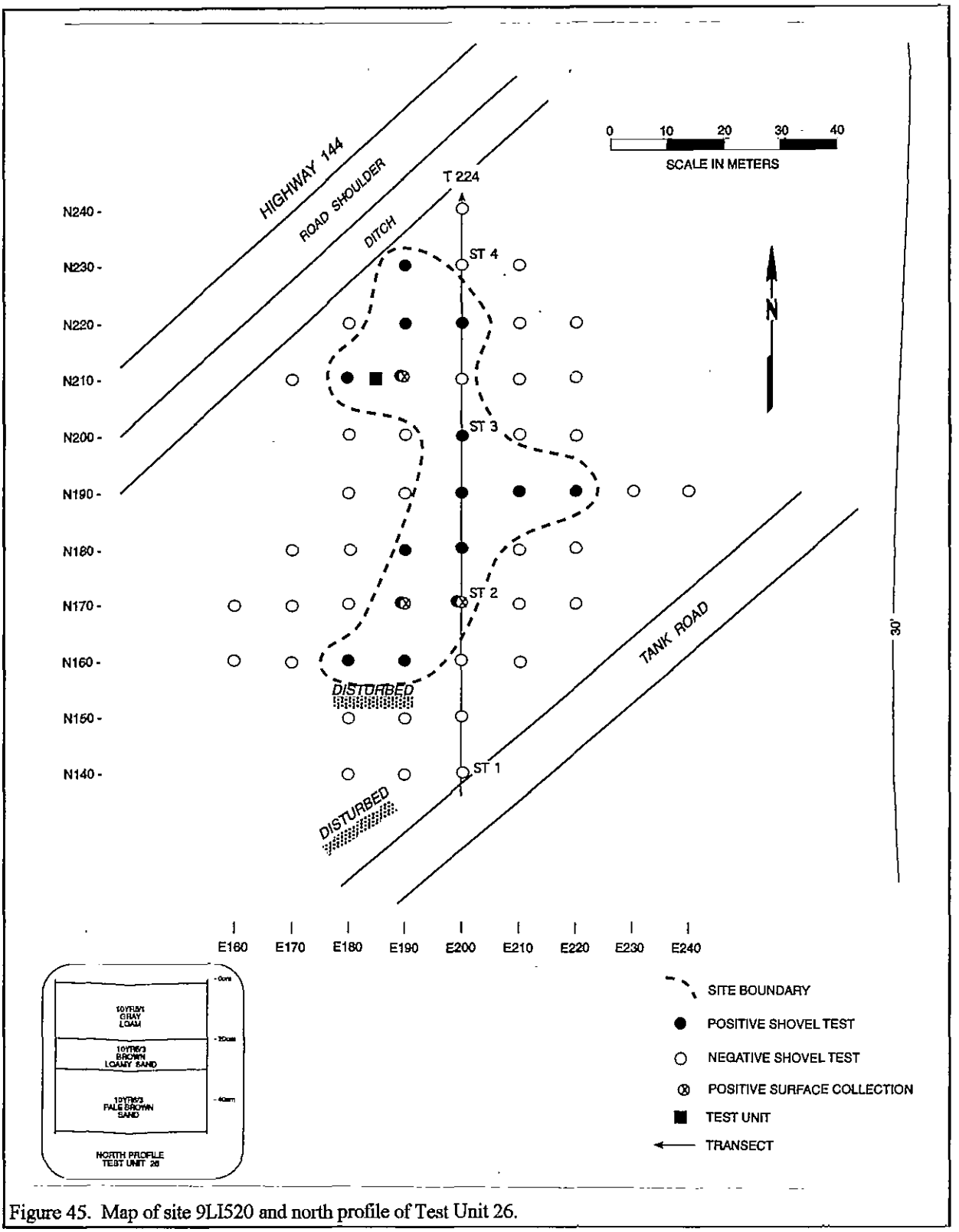

Figure 45. Map of site 9LI520 and north profile of Test Unit 26.

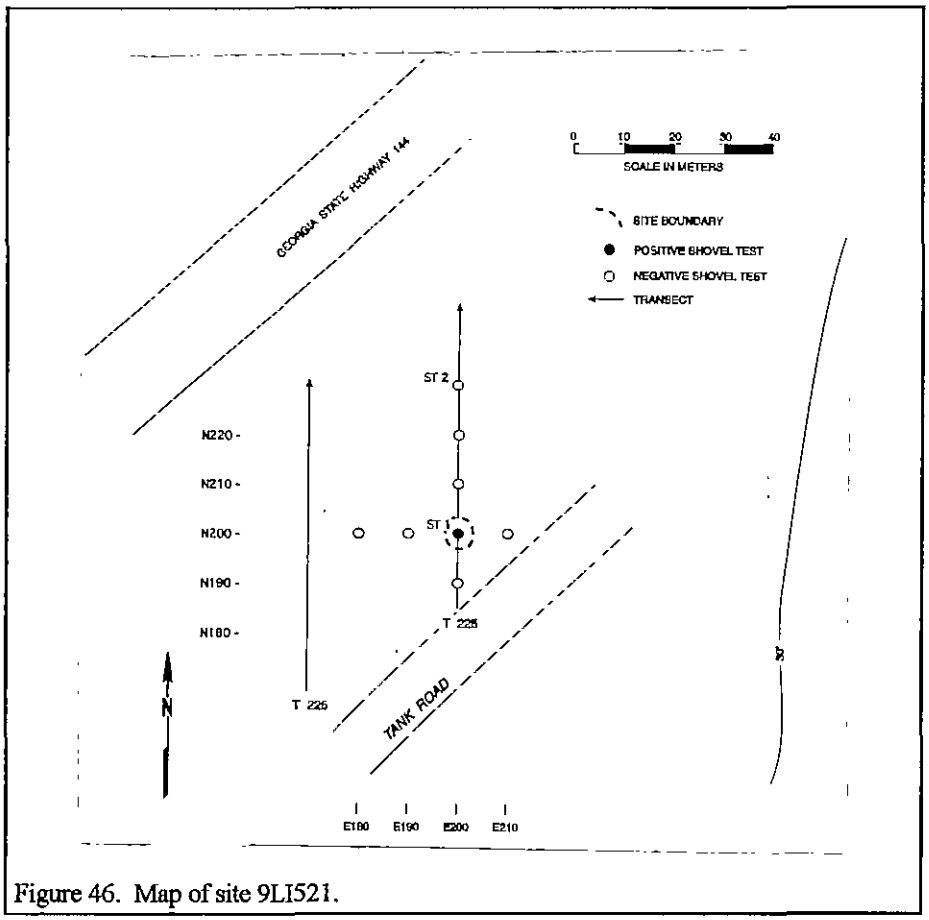

Figure 46. Map of site 9LI521.

surface collection and subsurface test at Shovel Test 3 on Transect 233. Two undecorated whiteware fragments, a poly handpainted whiteware fragment, and two black glass fragments were collected from the surface of the shovel test, and a brass USA 5 cents coin from the 1900s was recovered from the shovel test. Of the additional 12 shovel tests, only N200 E210 was positive and contained two black glass fragments, an aqua glass fragment, a small prehistoric sherd, and a green edged pearlware fragment was collected from the surface of the shovel test. The 50 by 50 cm Test Unit 29 was placed at N205 E205 and was excavated to a depth of 40 cm below the surface. Three undecorated whiteware fragments, a poly handpainted whiteware, and an aqua glass fragment were recovered from the first 10 cm of fill. A total of 15 historic artifacts and one prehistoric artifact were recovered from 9LI522. This site, which measures 400 m², appears to be a mixed scatter of prehistoric and historic artifacts with little integrity.

Soils in the test unit, belonging to the Chipley series, included a grayish brown (10YR5/2) sand to 30 cm below the surface and a brownish yellow (10YR6/6) sand to the bottom of the excavations. Chipley soils generally have an A horizon of sand that extends to 15.2 cm, and a sand C horizon that extends to 2.13 m below the surface.

Site 9LI522 is recommended not eligible for listing on the National Register of Historic Places because it is very disturbed and does not contain the data sets or integrity necessary for inclusion on the Register. No further work is recommended for this site.

9LI523

9LI523 is a multicomponent site located approximately 680 m west of the intersection of Fort Stewart Roads 54 and 51B. This large site, encompassing 3,200 m², crosses a firebreak and three transects (Figure 48). The central UTM coordinates are N3532730 E452450 and the elevation is 9 m AMSL.

The site is located in a heavily forested area, with planted pines, sweet gums, other mixed hardwoods, scrub oaks and yucca bushes. A modern trash pile, containing military trash, shoes, and bicycle wheels is located at the southeastern corner of the site.

A cruciform pattern began with Shovel Test 11 on Transect 278 as the central point. Additional shovel testing produced 18 positive shovel tests and two positive surface collections. Historic artifacts consist of mainly glass, and prehistoric artifacts include secondary and tertiary chert flakes and small ceramic sherds (Table 32). The small number of datable historic ceramics does not permit an accurate mean ceramic date. The prehistoric

artifacts are clustered in the northeastern portion and southwestern portions of the site. A 50 by 50 cm test unit was placed at N175 E190 in between two shovel tests that contained prehistoric artifacts in that area. No prehistoric artifacts were present from the test unit, but five historic artifacts were recovered from the first 10 cm of the unit. A total of 67 artifacts were recovered from 9LI523, including six prehistoric artifacts and 61 historic artifacts. The artifacts seem to suggest the presence of a house site of mixed integrity, although no standing architecture was present.

The test unit had an A horizon of grayish brown (10YR5/2) sand that extended to 50 cm below the surface and a B horizon of yellowish brown (10YR5/8) sand that extended to the bottom of the unit at 60 cm. Site 9LI523 is located on Pooler soils, which generally have an A horizon to 12.7 cm and a B horizon up to 1.4 m.

Shovel tests at 9LI523 generally reached subsoil at 30 cm below the surface, although most shovel tests were dug to a depth of 75 cm. Most artifacts for these shovel tests were encountered at 30 cm below the surface.

As discussed above, data sets at 9LI523 include kitchen group artifacts, nails and window glass in the architecture group, and artifacts in the clothing, personal, and activities groups. The prehistoric data sets include sherds and chert flakes. While these data sets do represent a significant artifact scatter across the site, presumably the information that can be gathered on artifact scatters at this site has been collected during shovel testing.

Site 9LI523 lacks other data sets, including construction hardware, brick fragments, architectural ruins, furniture hardware, construction tools, or farm tools. Subsistence data sets, such as ethnobotanical and faunal remains, are also absent from the site. Without these data sets, the types of research questions site 9LI520 could answer are limited. For example, with so few architectural artifacts, questions regarding the possible function of the site are difficult to address. In addition, the data sets present at the site cover a range of time periods in the same levels. The mixing of artifacts from different periods does not enable the site to be investigated with precise chronological control, which would be needed to address research questions. In addition the cutting of a firebreak through the site has caused disturbance. Soil profiles from the test unit indicate that the site has been subjected to redeposition. In addition, the site's southeastern surface was littered with modern trash, including military refuse, shoes, and bicycle wheels. These types of disturbance suggest that data sets at site 9LI523 are not well preserved, further limiting the site's ability to address significant research questions.

Table 32.
Artifacts Recovered from 9LI523

Provenience	Description
N170 E190 sur.	1 Bristol exterior stoneware
N170 E190	2 Bristol exterior stoneware, 1 secondary chert flake
N170 E200	1 undecorated whiteware
N170 E220	9 clear glass
N180 E190	1 small prehistoric sherd, 1 tertiary chert flake
N180 E220	1 secondary chert flake
N190 E220	1 undecorated whiteware, 1 window glass, 1 Herty cup fragment
N200 E200	1 undecorated whiteware, 5 aqua glass, 1 manganese glass, 5 clear glass
N200 E220	3 clear glass
N210 E200	1 Herty cup fragment
N210 E210 sur.	1 brown glass, 1 aqua glass insulator
N210 E210	3 brown glass, 2 clear glass, 1 iron buckle fragment, 1 iron strap, 4 wire cut nails
N220 E210	1 light green glass
N220 E220	2 aqua glass, 1 pottery marble
N220 E230	2 aqua glass, 3 clear glass
N230 E210	1 manganese glass, 1 wire fragment
N230 E220	1 small prehistoric sherd
N230 E230	1 small prehistoric sherd
N240 E210	1 clear glass
TU 33 20-30 cm	1 poly handpainted whiteware
TU33 30-40 cm	2 iron cap fragments

Based on these analyses, site 9LI523 is recommended as ineligible because it does not possess data sets necessary to address significant research questions, and has not retained integrity necessary for inclusion on the National Register of Historic Places.

9LI532

Site 9LI532 is the Parker-Sapp historic cemetery located 340 m west of Fort Stewart Road 51B. The site has central UTM coordinates of N3532590 E452800 and an elevation of 9 m AMSL. The cemetery measures 9.8

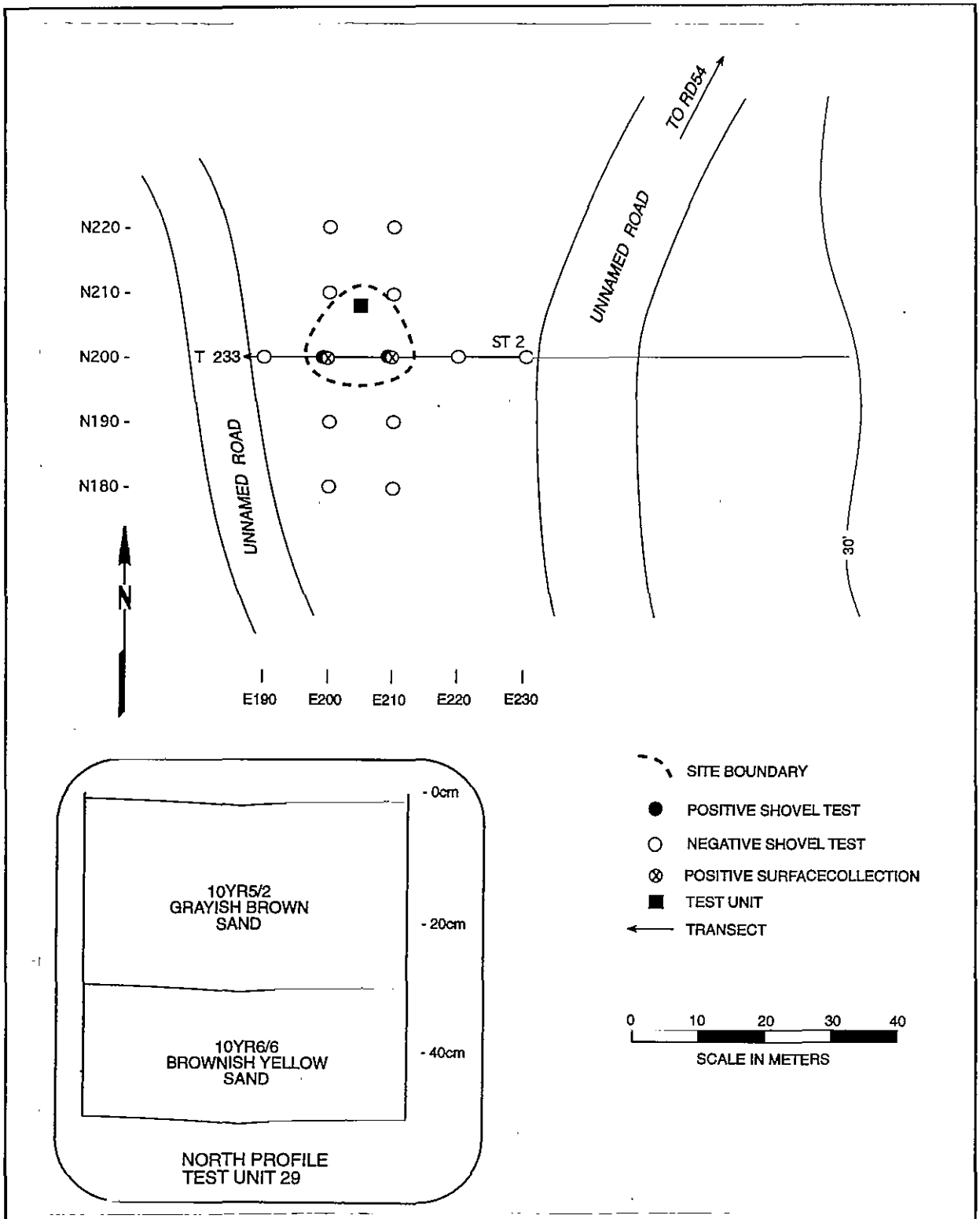

Figure 47. Map of site 9LI522 and north profile of Test Unit 29.

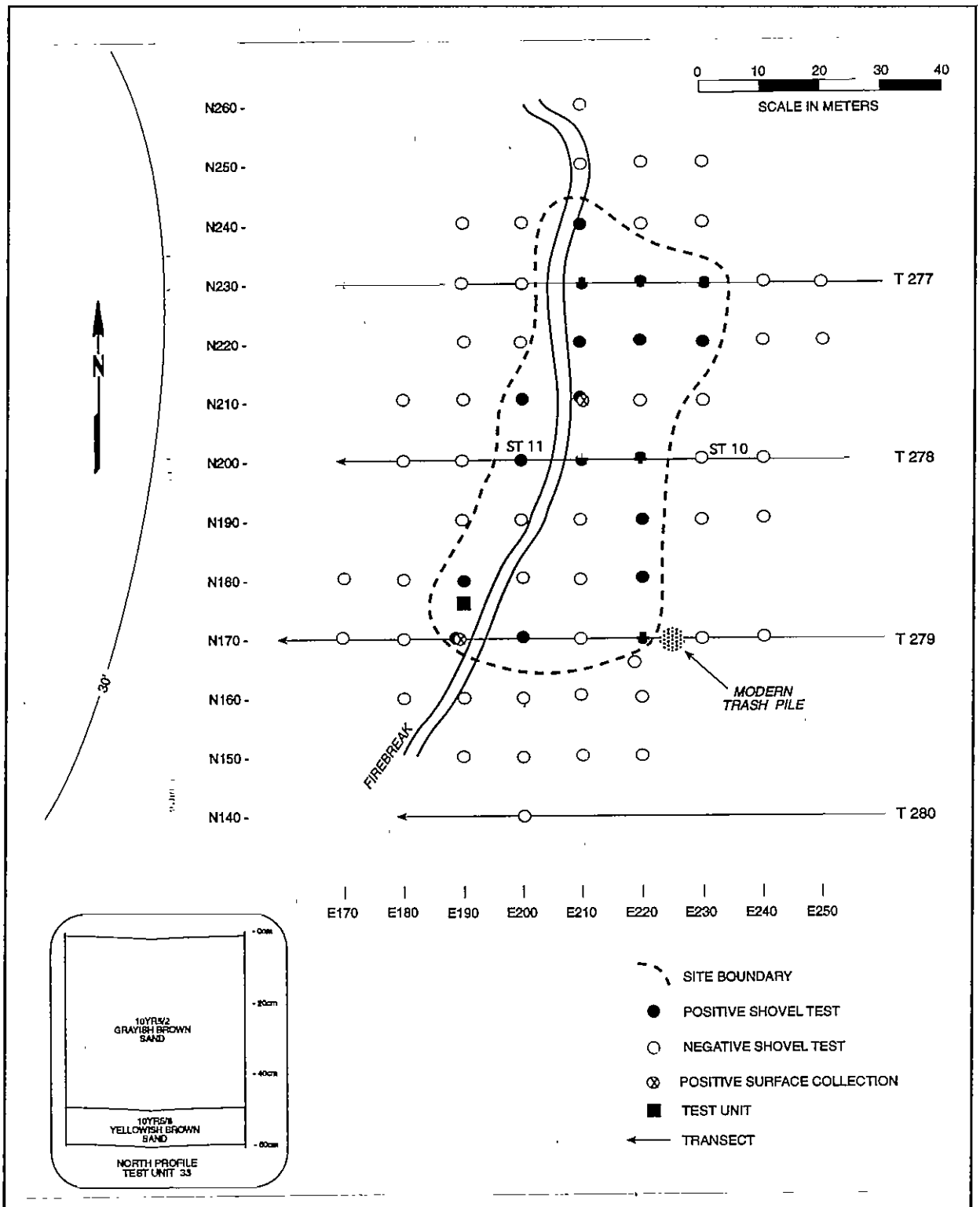

Figure 48. Map of site 9LI523 and north profile of Test Unit 33.

enclosed by a wire and concrete post fence and yard gate (Figure 49) erected in 1965. A number of pine trees and a sweetgum are located within the fence.

Of the five gravestones, only one, a marble tablet marker, bore any identifiable information (Figure 50). This marker[1] was erected for Private Mack M. Parker of Company H who served for the Confederate States of America in the 25th Georgia Regiment and died December 10, 1909. The marker, which is also inscribed with Confederate States of America symbol (Peters 1986: Appendix 1), was erected after 1929 by the U.S. Government. The other four markers are completely eroded and can no longer be read. All information on material type and dimensions of each gravestone was recorded and has been curated with the field notes for this project.

National Register Bulletin 41 indicates that cemeteries can and should be assessed under criteria D because they yield or may be likely to yield information important in history. Cemeteries evaluated under Criterion D (except for the graves of significant persons) do not need to meet the special requirements of the Criteria Considerations (Potter and Boland 1992:16).

This cemetery is recommended as potentially eligible (or indeterminate) for inclusion on the National Register under criteria D. A cemetery can provide important information concerning socioeconomic status, social organization, trade, and business patterns, without excavating any of the associated burials.

Two additional factors contribute to a cemetery's eligibility. First, if the cemetery must be moved at any time and no archaeological investigation takes place, biocultural and archaeological information will be lost. Second, cemeteries made eligible will help ensure that data sets are not damaged or destroyed by cemetery maintenance activities, such as refurbishing fences.

[1] CSA burials were marked with round top wooden markers until 1873 when the Department of War adopted a slab design of marble that measured four inches thick, ten inches wide, and 12 inches in height with a slightly curved top. In 1879, Congress authorized the furnishing of these stones to the unmarked graves of veterans in private cemeteries. The dimensions of the stones were changed in 1903, when the height increased to 39 inches, and the width to 12 inches. Congress authorized a stone with a pointed top instead of rounded top in 1929. In 1930, the War Department authorized the implementation of the Confederate Cross of Honor in a small circle on the front face of the stone above the inscription of the soldier's name, rank, company and regiment. (http://www.cem.va.gov/hmhist.htm).

9LI533

Site 9LI533, an isolated historic find, is located 500 m west of Fort Stewart Road 51B, approximately 2 km southeast of the intersection of Georgia State Highway 144 and Fort Stewart Road 54. The site's central UTM coordinates are N3532440 E452709 and the elevation is 9 m AMSL.

The site originated on Transect 286, Shovel Test 10 and was tested using a cruciform pattern in the four cardinal directions from this point (Figure 51). The isolated occurrence, measuring 1 m², is located on a slight rise with mixed hardwoods and pines at the edge of a maple and oak swamp. Other than the five fragments of clear glass recovered from Shovel Test 10, no other artifacts were encountered in the eight additional shovel tests. Shovel Tests 9 and 11 were also negative and no further testing was undertaken. This site does not possess data sets necessary for inclusion on the National Register of Historic Places and is recommended as not eligible.

9LI534

Site 9LI534 is located 280 m west of Fort Stewart Road 51B, approximately 2.2 km southeast of the intersection of Georgia State Highway 144 and Fort Stewart Road 54. This historic site is 7,000 m² and crosses 3 transects (Figure 52). The Parker-Sapp cemetery is located 40 m north of the site. The central UTM coordinates are N3532560 E453800 and the elevation is 9 m AMSL. The surrounding area is relatively flat with mixed hardwoods and planted pines. The northeastern and central portions of the site are not as heavily wooded as the western and southern portions.

Testing was performed using a cruciform pattern with positive Shovel Test 7 on Transect 284 as the central point. An additional 17 positive shovel tests and surface collections produced 36 artifacts, including 34 historic and two 2 prehistoric artifacts, described in Table 33. Artifact concentrations, producing at least three artifacts per test, were located along the N190 line of shovel tests and at N200 E200. The remainder of the shovel tests produced one artifact per shovel test. The prehistoric artifacts, all tertiary and secondary chert or

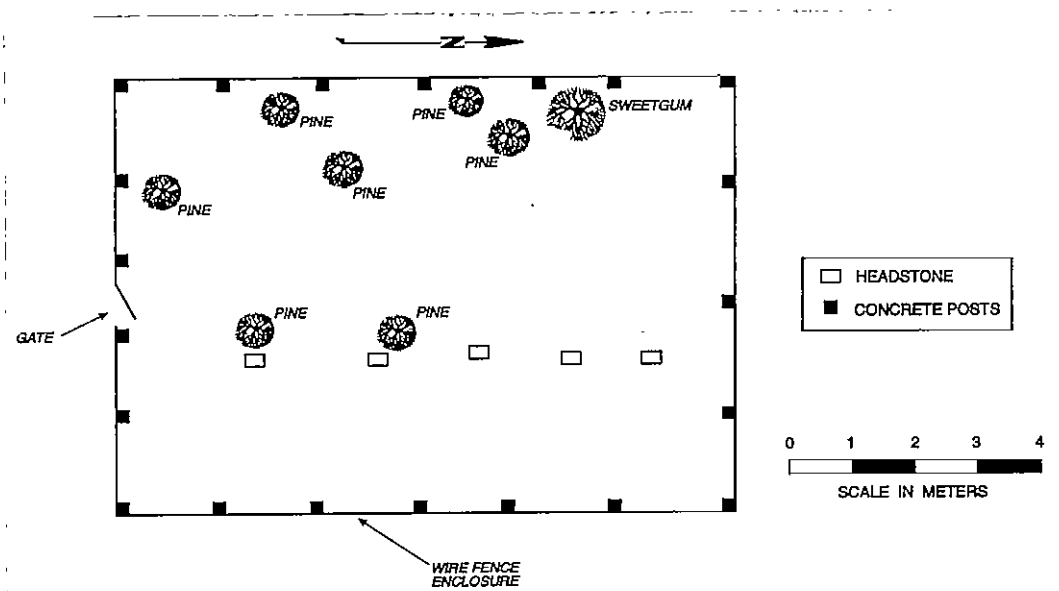

Figure 49. Map of the Parker-Sapp Cemetery (9LI532).

Figure 50. Marker located in Parker-Sapp Cemetery.

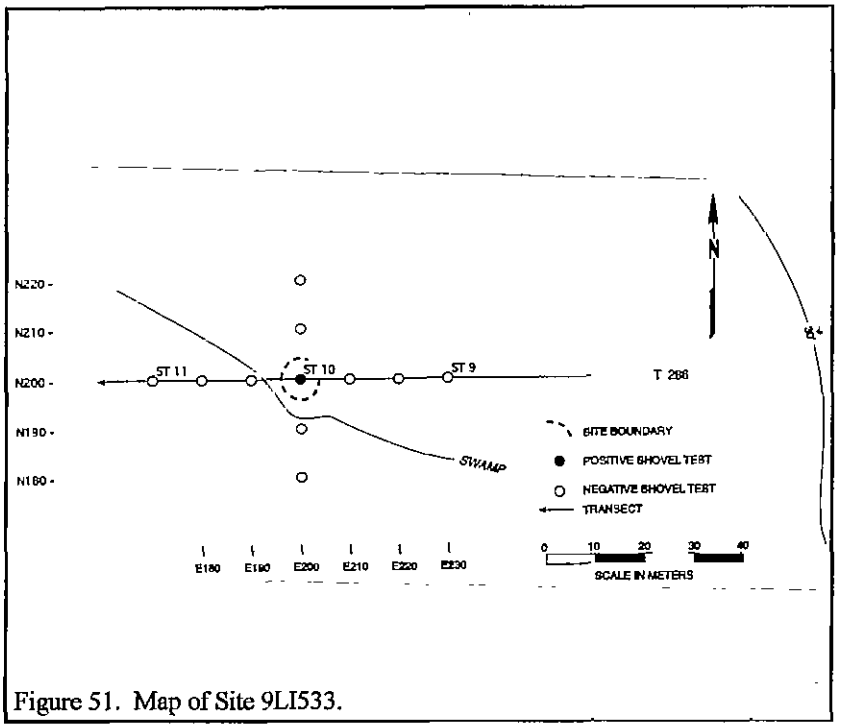

Figure 51. Map of Site 9LI533.

quartz flakes, were located at N190 E200, N200 E250, and in Test Unit 32. A total of 41 artifacts were recovered from 9LI534, including six prehistoric artifacts and 35 historic artifacts.

Test Unit 32 was located at N185 E215, a location central to all positive shovel tests. The 50 by 50 cm unit was excavated to a depth of 80 cm below the surface and a total of five artifacts were encountered in the first 30 cm of the unit. Only one historic artifact, a whole blue small glass bottle, came from the 0-10 cm level, while the prehistoric artifacts, three tertiary chert flakes and a secondary quartz flake, came from the 0-30 cm levels. The soil profile for Test Unit 32 included a dark grayish brown (10YR4/2) loam to a depth of 20 cm, a dark brown (10YR3/3) loamy sand to a depth of 30 cm, a dark gray (10YR4/1) sand to a depth of 45 cm, and a pale brown (10YR6/3) sand to the bottom of the excavation at 60 cm. Pooler soils, on which the site is located, generally have an A horizon of very dark gray (10YR3/1) fine sandy loam to 12.7 cm and a B horizon that includes grayish brown (10YR2.5Y5/2) sandy clay loam, grayish brown 10YR5/2) sandy clay, gray (10YR6/1) clay and light brownish clay (2.5Y6/2) to a depth of 1.4 m. The difference in the soil profiles suggests that the test unit soils have been subjected to erosion and redeposition.

This site is shown on the 1958PR73 USGS Limerick NW quad as a structure near the Parker-Sapp cemetery. In addition, an early 20th century map, the 1920R1926 Limerick map, also shows a structure in this area. No structural ruins or remains were recovered, and therefore the function of the site as related to the structure shown on the USGS topographic map is unknown and cannot be discerned from this level of testing. A mean ceramic date could not be obtained since only a few datable ceramics were recovered from testing, although the materials are characteristic of the early twentieth century.

Although parts of the site have been subjected to some erosion and redeposition, the historic component of the site seems to be intact and may have the integrity necessary to address important research questions. Little is known about sites of this nature at Fort Stewart, and relatively few have been excavated or tested. Further testing at 9LI534 would determine the site's ability to answer significant research questions. Sites such as 9LI534 have the potential to provide information on the dispersed homesites, tenant farms, turpentine camps, stores and other structures in the Fort Stewart during the late nineteenth and early twentieth century, as there is a very limited database for mid- to late-nineteenth century sites on Fort Stewart (Campbell et al. 1996:138).

Site 9LI534 is unique to this survey tract because it is located near the Parker-Sapp cemetery. The proximity of the Parker-Sapp cemetery may be an indication of the site's function, as may the low density of artifacts, such as a small church or cooling shed. Garrow (1982) and Garrow and Klein (1984) have suggested that sites once used as public spaces produce an artifact pattern, called the Public Interaction Sphere Artifact Pattern, which has lower artifact densities than sites that produce other types of artifact patterns. Research at a site representing another type of public building, an antebellum school in Sumter County, South Carolina, similarly produced a low density of artifacts (Trinkley et

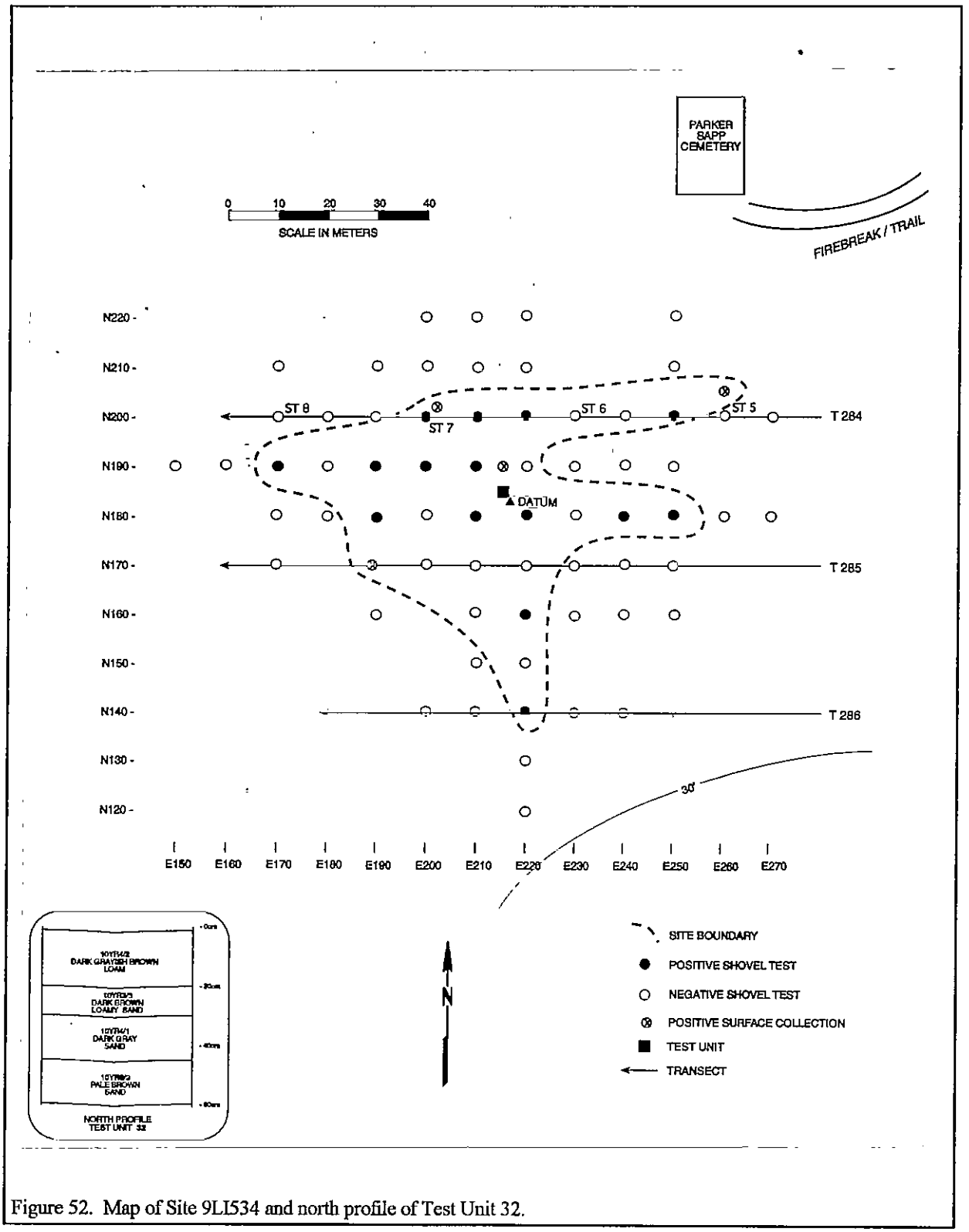

Figure 52. Map of Site 9LI534 and north profile of Test Unit 32.

Table 33.
Artifacts Recovered from 9LI534

Provenience	Description
N140 E220	1 undecorated whiteware
N160 E220	1 brown salt glazed stoneware
N170 E190 sur.	1 brown glass liquor bottle
N180 E190	1 clear glass
N180 E210	1 undecorated whiteware, 1 Herty cup fragment
N180 E220	1 iron knife blade fragment
N180 E240	1 aqua glass
N180 E250	1 undecorated whiteware
N190 E170	4 manganese glass
N190 E190	1 milk glass, 1 clear glass, 1 UID nail fragment
N190 E200	4 melted glass, 1 rhyolite shatter
N190 E210	3 UID nail fragments
N190 E215 sur.	1 blue glass
N200 E200 sur.	5 clear glass
N200 E200	1 manganese glass
N200 E210	1 clear glass
N200 E220	1 milk glass
N200 E250	1 tertiary chert flake
N205 E260 sur.	2 undecorated pearlware
TU 32 0-10 cm	1 whole blue small glass bottle, 1 tertiary chert flake
TU 32 10-20 cm	1 tertiary chert flake
TU 32 20-30 cm	1 tertiary chert flake, 1 secondary quartz flake

al. 1985).

Further testing at 9LI534 could help address research questions about historic site functions near cemeteries, and historic landscape use in the Fort Stewart area. Are these the remains of a small church, a domestic site, or a turpentine camp? Can a low artifact density be expected at certain historic structures? How might the proximity of the cemetery affected use of the landscape? Additional historic research may also determine land ownership in the area and of the cemetery.

Testing at 9LI534 can also lead to an understanding of regional landscape use. For example, given the number of historic cemeteries on base, are churches usually associated with these cemeteries? What structures are likely to be associated with cemeteries? Are the cemeteries located near homes rather than churches in rural areas? Site 9LI534 most likely has the data sets necessary to address these research questions, and at the very least, will add to the Fort Stewart database and help refine predictive modeling for the base.

As will be discussed in the **Conclusions**, the percentage of the extant historic structures recovered on the base is low, and Thomas et al. (1996:205) note that these historic sites are often missed by archaeological surveys. Given that this site has been located in a distinctive location near the cemetery, it is a good candidate for further exploration We recommend that further testing and additional historical research be undertaken for site 9LI534 to determine the site's ability to address significant research questions, such as those presented above. The site is recommended as indeterminate (potentially eligible) for inclusion on the National Register of Historic Places under Criteria D (*National Register Bulletin 36*). The Georgia SHPO however, does not concur with our recommendation, and has determined that site 9LI534 is ineligible for inclusion on the National Register of Historic Places (letter from Mr. Richard Cloues, Deputy State Historic Preservation Officer to Colonel Ovidio Perez, dated January 6, 1999).

Sites Recorded in Survey Tract NRMU B7.2

A total of eight sites were recorded in survey tract NRMU B7.2, including four previously recorded and four newly located (Figure 53), in addition to an earthen dam site (9LI484) located in Taylors Creek directly outside of our survey boundary. These include two historic sites, two isolated historic occurrences, two isolated multicomponent occurrences, and two prehistoric sites.

9LI315

Site 9LI315 was first recorded in July 1994 by Thomas Pluckhahn of Southern Research as an historic artifact scatter in Food Plot # 410315, located next to Fort Stewart Road 47A and extending to a large oak across Fort Stewart Road 47A. The UTM coordinates were recorded as N3531550 E441980 and an elevation of 18 m AMSL was noted. The site measured 120 m by 40 m, or 4,800 m^2. No surface collection of artifacts was made at the time, but numerous whiteware, pearlware, and glass fragments were observed. The site was recorded as having "unknown" National Register standing.

Site 9LI315 was relocated adjacent to Fort Stewart Road 47A and bisected by an unnamed road that leads to Foodplot # 410315 (Figure 54). This site is 550 m east of Taylors Creek and 1.8 km southeast of the

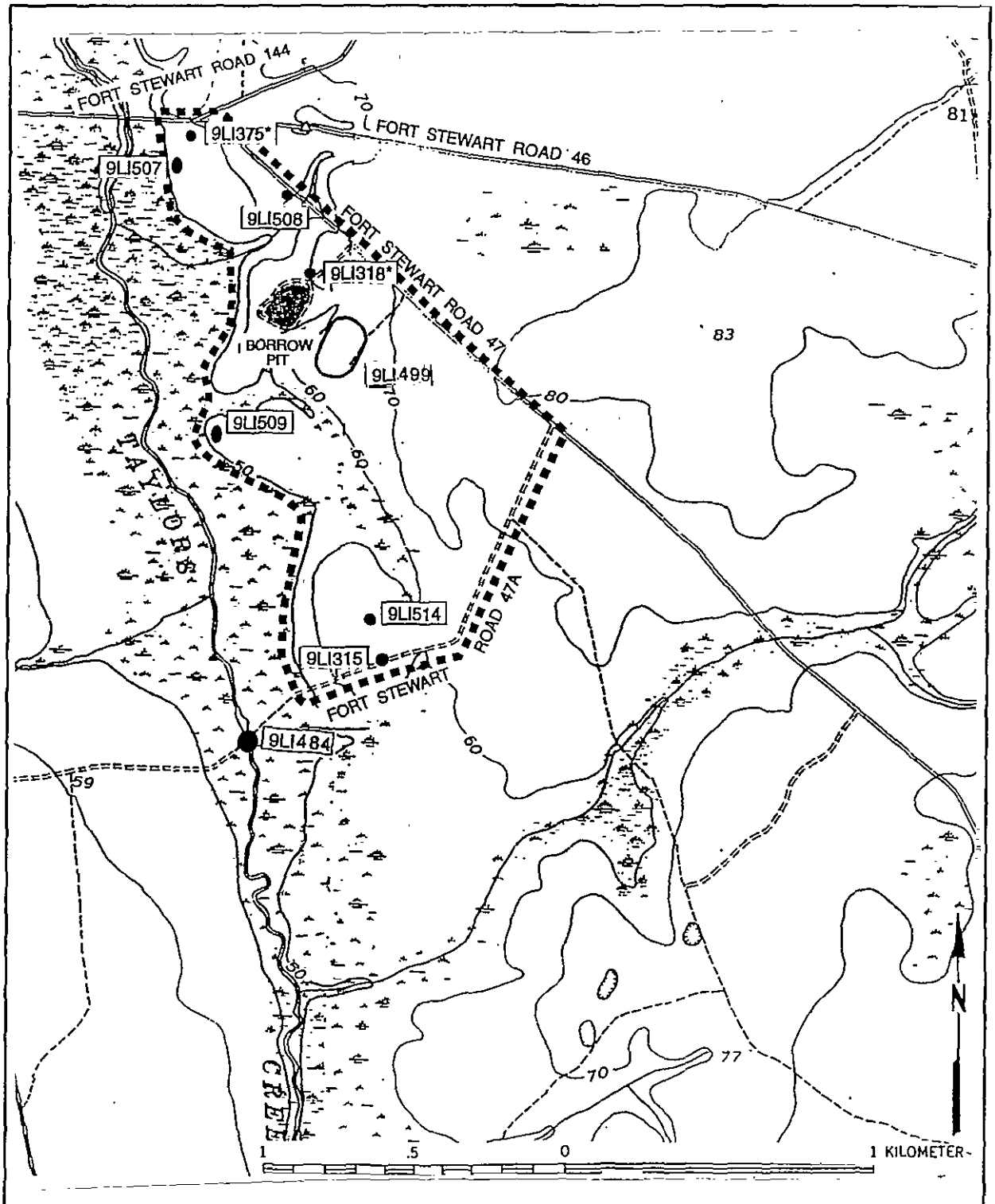

Figure 53. Sites located in survey tract NRMU B7.2.

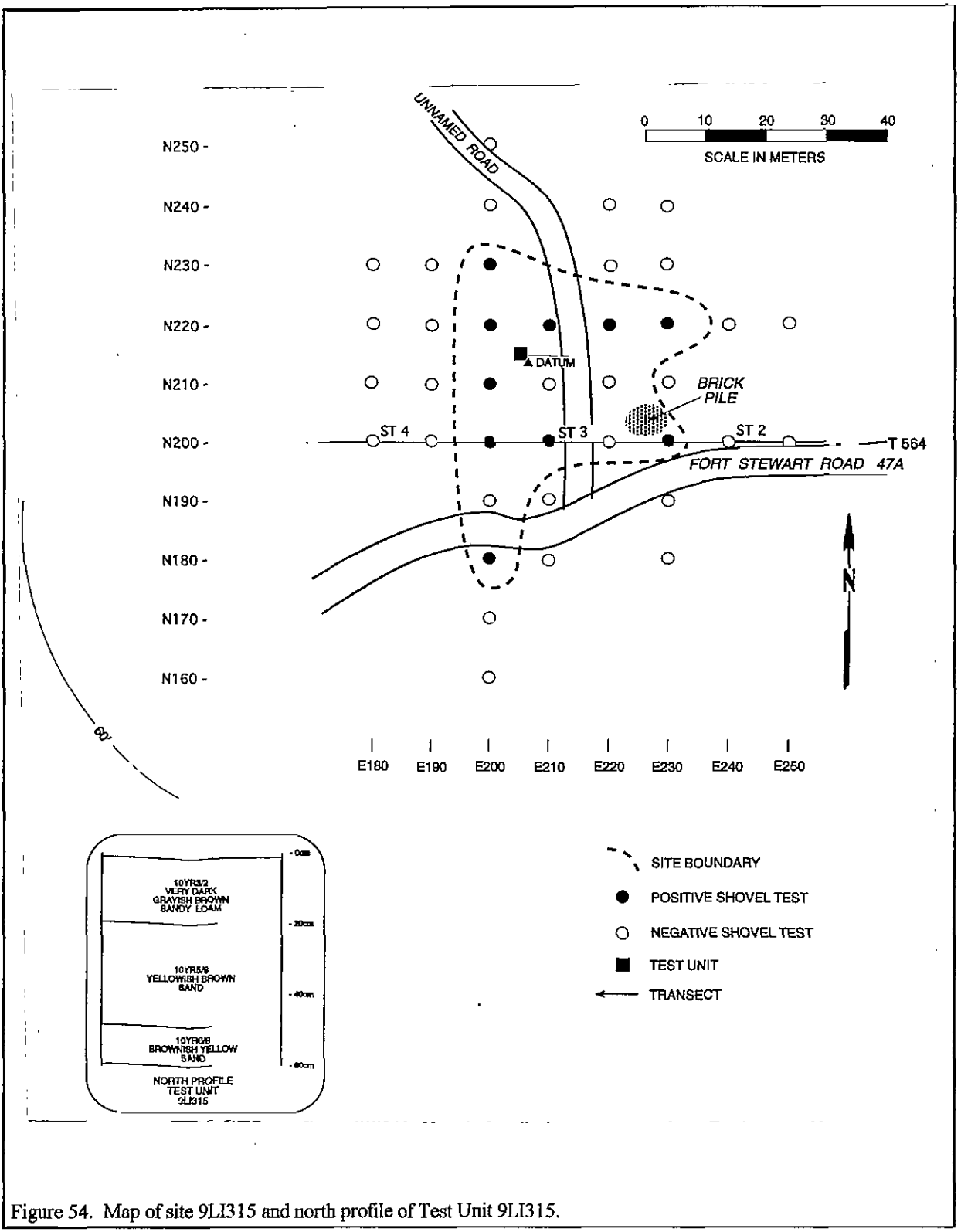

Figure 54. Map of site 9LI315 and north profile of Test Unit 9LI315.

intersection of Fort Stewart Roads 47 and 144. The central UTM coordinates are N3531340 E440800 and the elevation is 18 m AMSL.

While the UTM coordinates are not the same, we believe this site to be 9LI315 based on the distinct topography. The site is located on the edge of a slight rise that slopes towards Taylors Creek. The vegetation at the site consists of mixed hardwoods and pines that open up into a cleared area with sparse grass on the north side of Fort Stewart Road 47A. On the south side of Fort Stewart Road 47A, directly in line with the unnamed dirt road, is a large mature oak, in addition to mixed hardwoods and pines.

Shovel tests were excavated at 10 m intervals in cardinal directions from positive Shovel Test 3 on Transect 564. All tests were excavated to a depth of at least 40 cm, with subsoil generally reached at 40 cm. Of 39 shovel tests, 10 yielded a total of 62 artifacts, including fragments of a milk glass preserve jar lid, 8d and 30d machine cut nails, and a bisque porcelain dolls' head fragment (Table 34). These 80 historic artifacts date to the late nineteenth and early twentieth centuries. The only datable ceramics recovered from site 9LI315 include undecorated whiteware, which has a mean ceramic date of 1860. A pile of bricks was noted at N205 E225. The location of the site is consistent with the location of a structure shown on the 1918 edition of the USGS Hinesville quad map. No other structures shown on the 1918 map in NRMU B7.2 were recovered during this survey (see **Conclusions** for further discussion).

The soil profile from Test Unit 9LI315, a 50 by 50 cm unit located at N215 E205, consisted of 20 cm of very dark grayish brown (10YR3/2) sandy loam overlying 30 cm of yellowish brown (10YR5/6) sand and 5 cm of brownish yellow (10YR6/8) sand. Six artifacts were recovered from the 0-10 cm level, five from the 10-20 cm level, and seven from the 20-30 cm level. The soils are classified as Stilson soils which typically have an A horizon of 73.7 cm of dark grayish brown (10YR4/2) loamy sand and pale yellow (2.5Y7/4) loamy sand and a B horizon extending to 1.8 m of brownish yellow (10YR6/6) sandy loam, mottled sandy clay loams, and light gray (10YR7/1) sandy clay loam. The deflated A horizon suggests that the site is eroded.

Table 34.
Artifacts Recovered from 9LI315

Provenience	Description
N180 E200	1 undecorated whiteware, 1 clear glass
N200 E200	2 clear glass, 2 machine cut nails
N200 E210	1 black glass, 1 clear glass, 2 window glass
N200 E230	2 undecorated whiteware, 1 brown glass, 1 manganese glass, 1 aqua glass, 1 clear glass, 2 window glass
N210 E200	2 undecorated whiteware, 1 back glass, 2 blue glass, 1 manganese glass, 1 clear glass, 1 UID iron, 1 UID nail fragment
N220 E200	2 manganese glass, 1 UID nail fragment, 2 undecorated whiteware
N220 E210	2 milk glass, 2 aqua glass, 6 clear glass
N220 E220	4 undecorated whiteware, 1 Albany glazed stoneware, 1 brown glass, 2 clear glass, 1 window glass
N220 E230	1 undecorated whiteware, 2 Bristol glaze stoneware, 1 manganese glass, 5 clear glass
N230 E200	1 undecorated whiteware, 1 brown glass
TU 0-10cm	2 undecorated whiteware, 1 bisque porcelain doll head fragment, 1 aqua glass, 1 clear glass, 1 UID iron
TU 10-20cm	1 undecorated whiteware, 1 manganese glass, 2 window glass, 1 UID nail fragment
TU 20-30cm	7 window glass

Further testing is recommended for site 9LI315 in order to ascertain the potential for this site to address significant research questions and to refine the predictive modeling for historic sites at Fort Stewart. The site posses the data sets, including a number of historic artifacts and brick remnants, to answer research questions, and also appears to have the integrity necessary to address questions, evidenced by the large number of subsurface remains present in the area. Although site 9LI315 is located at the intersection of two roads and has suffered some erosion, it has not been extensively damaged by military maneuvers in the area, as some other historic sites have been.

The site's position near Taylor's Creek may address significant research questions that consider use of the creek's resources, transportation and access to goods in a location that does not appear to be part of a community, and the function of a single site located near

the creek. Additional research at 9LI315 would also address questions of land ownership outlined by Campbell et al. (1996:229). Site 9LI315 is therefore recommended as potentially eligible (indeterminate) for inclusion on the National Register of Historic Places under Criteria D.

9LI318

Site 9LI318 was first recorded in July 1994 by Thomas Pluckhahn of Southern Research as an historic artifact scatter on a ridge above Taylors Creek near Borrow Pit 33A, 50 m west of Fort Stewart Road 47. The UTM coordinates were recorded as N3532720 E440770 and the site's elevation was reported to be 21 m AMSL.

The site measured 30 m by 30 m, and was located in an extensively disturbed area used for artillery fire. No sur face collection of artifacts was made at the time, but two pieces of green and blue edged ware were noted on the surface. The site was recommended ineligible for National Register standing.

Site 9LI318 was relocated on Transect 516, Shovel Test 4, and contained a single piece of stoneware. The vegetation consists of mixed hardwoods and pines surrounding the clear cut area around the borrow pit. A series of trenches used for military training were located east of the site near Fort Stewart Road 47. The eight additional shovel tests revealed no other artifacts and defined the site measurement as 1 m² (Figure 55). The area was littered with modern refuse, including military rations, coke cans, and trash bags. The borrow pit was also being used at the time of this survey. The central UTM coordinates are N3532720 E440770 and the

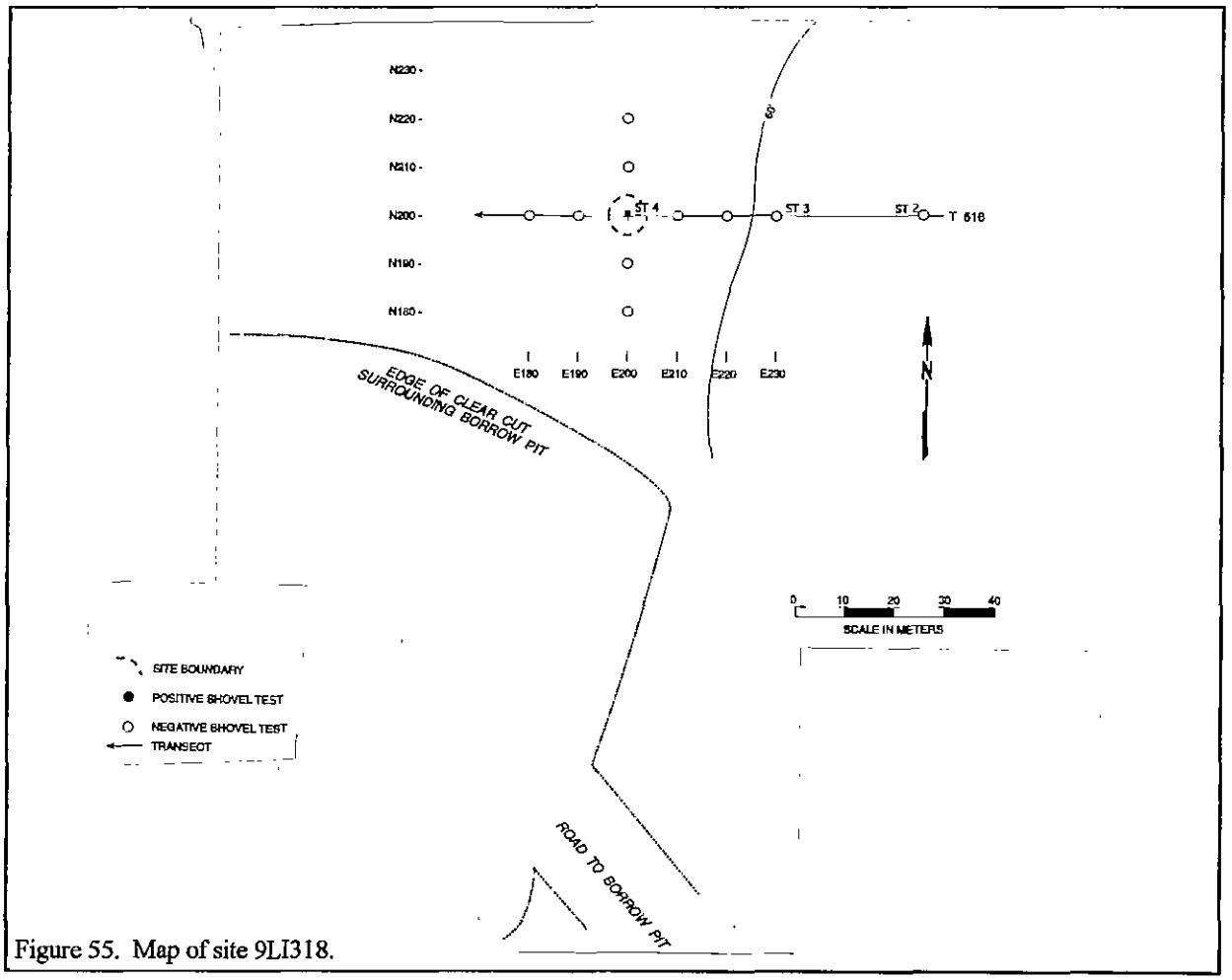

Figure 55. Map of site 9LI318.

elevation is 21 m AMSL. This isolated occurrence is recommended as ineligible for the National Register of Historic Places and no further work is suggested.

9LI375

Site 9LI375 was first recorded in December 1996 by M. Clayton Helms of ORISE as an historic house site near Fort Stewart Road 144. The UTM coordinates were recorded as N3533135 E440325 with an elevation of 15 m AMSL.

The site measured 30 m by 50 m, and was noted as being extensively damaged by borrow pit activities. The 1996 survey revealed eight wire cut nails, three ferrous fragments and three flat, clear glass fragments. The site was recommended ineligible for the National Register of Historic Places.

Site 9LI375 was relocated on Transect 503, Shovel Test 7, in a heavily forested area of mixed hardwoods and pines. The site sits on a slight rise that gradually slopes toward Fort Stewart Road 144. An additional 23 shovel tests placed in a cruciform pattern from Shovel Test 7 produced a total of four artifacts from three positive shovel tests including Shovel Test 7, designating site 9LI375 as an isolated occurrence (Figure 56). The recovered artifacts include an unidentified prehistoric sherd, an undecorated whiteware, a fragment of window glass, and a tertiary chert flake. This isolated occurrence is recommended as ineligible for the National Register of Historic Places because it does not contain the data sets necessary to address significant research questions.

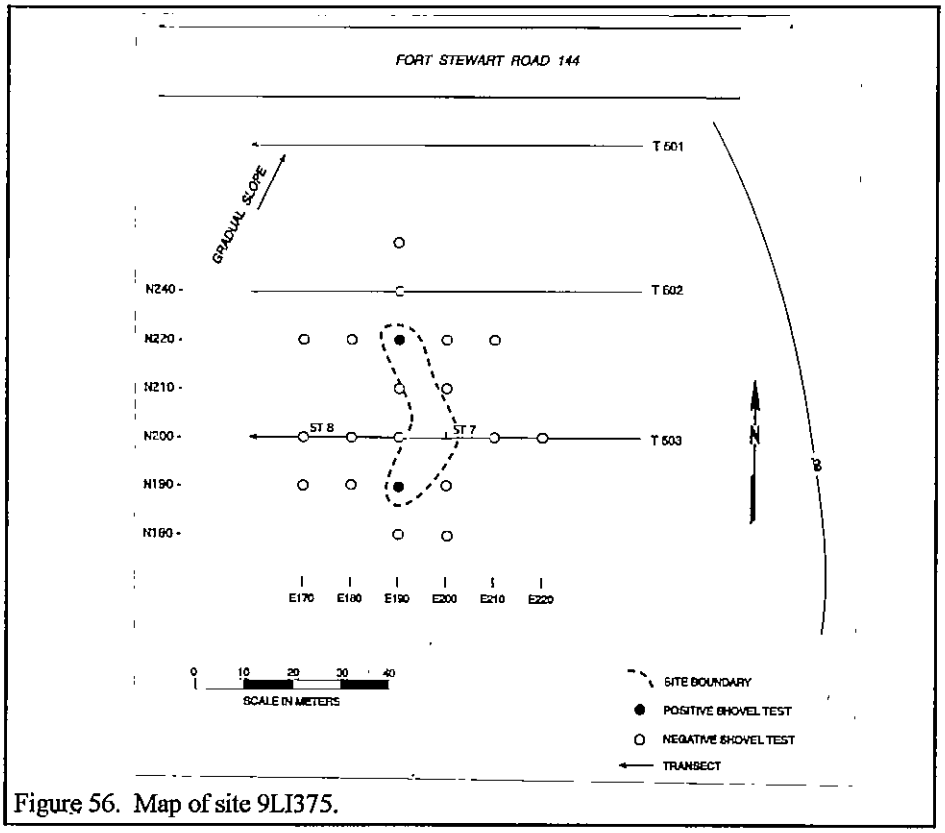

Figure 56. Map of site 9LI375.

9LI499

Site 9LI499 was first recorded in October 1997 by Eric Giles of ORISE as an historic house or community site with isolated prehistoric artifacts on a low rise above seasonal drainage. The UTM coordinates were recorded as N3532410 E440875 with an elevation of 1 m AMSL. The site is located 500 m west of Fort Stewart Road 47 and 1.1 km south east of the intersection of Fort Stewart Roads 144 and 47.

The site had a considerable surface scatter of historic artifacts and bricks with subsurface rubble and artifact concentrations when first tested. Giles notes that the site appeared to have been bulldozed and completely destroyed. Whiteware, earthenware, stoneware, porcelain, glass, nails, metal fragments, chert flakes and a prehistoric sherd were collected during testing by Giles in 1997. At this time it was recommended as ineligible for inclusion on the National Register of Historic places.

This site was again encountered during the Chicora survey in June 1998 and covered Transects 526-535. A total of 29 artifacts were

recovered from these shovel tests. After consulting Fort Stewart's Consulting Archaeologist David McKivergan, it was decided that the site did not need to be further tested by Chicora. Artifacts recovered from 9LI499 during the survey are described in Table 35. The shovel tests produced a total of 26 historic artifacts. We concur with the previous assessment that the site is not eligible for inclusion on the National Register.

Table 35.
Artifacts Recovered from 9LI499

Provenience	Description
T525 ST20	1 poly handpainted porcelain
T526 ST9	1 UID iron
T526 ST11	1 machine cut nail fragment
T527 ST10	1 alkaline glazes stoneware
T529 ST15	1 brown slat glazed stoneware, 3 burnt refined earthenware, 3 clear glass, 1 machine cut nail, 1 machine cut nail fragment
T529 ST17	1 melted glass
T530 ST17	1 blue transfer print pearlware
T531 ST15	1 UID nail fragment
T531 ST17	3 light green glass
T532 ST14	1 machine cut nail
T532 ST15	1 clear glass
T532 ST16	1 undecorated pearlware, 1 blue edge pearlware, 1 blue transfer print whiteware
T533 ST18	1 UID iron
T535 ST17	1 brown transfer print whiteware
T535 ST19	2 brown slat glazed stoneware, 1 machine cut nail

9LI507

Site 9LI507 is prehistoric habitation site located on a bluff edge that slopes down towards Taylors Creek. It is located 320 m west of Fort Stewart Road 47, 260 m east of Taylors Creek and 250 m south of Fort Stewart Road 144. The vegetation consists of mixed hardwoods and pines and gradually turns into a cypress tree swamp closer to Taylor's Creek.

The site measures 4,000 m² and the central UTM coordinates are N3532890 E440380 with an elevation of 15 m AMSL. The area is heavily forested with mixed hardwoods and pines and a sparse scrub oak understory.

Shovel testing for site boundaries began from Shovel Test 10 on Transect 503 in a cruciform pattern that crossed three transects (Figure 57). Sixty-four additional shovel tests produced 38 artifacts from 16 positive shovel tests. Diagnostic artifacts include a perforated soapstone disc, a Deptford Simple Stamped sherd, a Deptford Cord Marked sherd, two Deptford Complicated Stamped sherds, and a Deptford Check Stamped sherd, which indicate that the site dates to the Middle Woodland period for both Coastal Georgia and the Middle Savannah Valley. In addition, a Savannah Complicated Stamped sherd, a Savannah Plain sherd, and an incised Irene sherd were also recovered from 9LI507. The Savannah sherds are associated with the Early Mississippian in Coastal Georgia and the Late Woodland in the Middle Savannah Valley. The Irene sherd is associated with the Late Mississippian in Coastal Georgia and possibly the Early and Late Mississippian for the Georgia Coastal Plain Pine Barrens. Other non-diagnostic artifacts are listed in Table 36.

Shovel tests were excavated to at least 60 cm, and generally reached 75 cm below the surface. The soil profile for Test Unit 38 consisted of 15 cm of dark yellowish brown (10YR4/6) sandy loam overlying yellowish brown (10YR5/6) sand. Site 9LI507 is located on Leefield soils, which typically have an A horizon of very dark gray (10YR3/1) loamy sand and light yellowish brown (10YR6/4) loamy sand to 55.6 cm and a B horizon of light yellowish brown (10YR6/4) sandy loam and sandy clay loam to 96.5 cm. The lack of the first layer of the A horizon for Test Unit 38 indicates that the soil in this area has been subjected to erosion. Artifacts were recovered from the top 30 cm of fill in Test Unit 38, and included only three sherds and a tertiary flake (Table 36).

This site is recommended as potentially eligible (indeterminate) for inclusion on the National Register of Historic Places because it contains data sets, including a number of ceramic and lithic materials, that can address significant research questions concerning the importance of the Pine Barren area in prehistory. The subsurface presence of artifacts indicates that the site does have integrity. However, the site has been subjected to erosion and will continue to erode, especially given its location on a bluff edge overlooking Taylor's Creek. Further testing is recommended to protect the site from further erosional damage and to assess the types of research questions that the site can address.

Site 9LI507 can address a number of significant research question important to understanding the

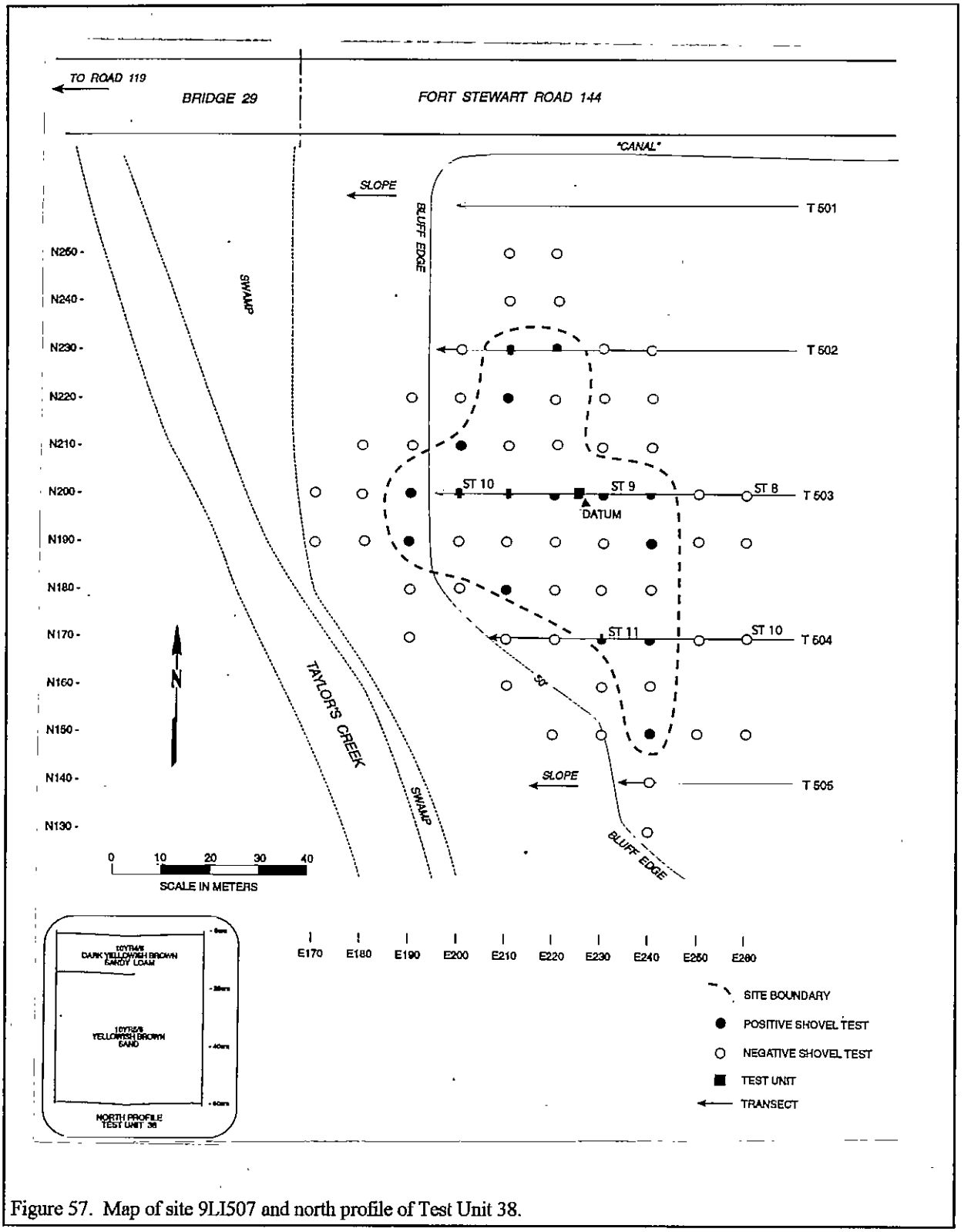

Figure 57. Map of site 9LI507 and north profile of Test Unit 38.

Table 36.
Artifacts Recovered from 9LI507

Provenience	Description
N150 E240	2 small prehistoric sherds
N170 E230	1 UID brass fragment, 1 Deptford Simple Stamp sherds, 2 UID prehistoric plain sherds, 1 secondary chert flake
N170 E240	3 Deptford Cord Marked sherds
N180 E210	3 small prehistoric sherds, 1 Savannah Complicated Stamped sherd, 1 UID plain prehistoric sherd
N190 E190	1 small prehistoric sherd
N190 E240	1 calcinated bone, 1 UID plain prehistoric sherd, 1 small prehistoric sherd
N200 E190	1 Plain Savannah sherd
N200 E200	1 UID plain prehistoric sherd, 1 small prehistoric sherd,
N200 E210	1 perforated soapstone disc
N200 E220	2 Deptford Complicated Stamped sherds, 1 small prehistoric sherd
N200 E230	1 Deptford Check Stamped sherd, 1 tertiary coastal chert flake
N200 E240	2 tertiary chert flakes
N220 E210	1 tertiary chert flake, 1 small prehistoric sherd
N230 E210	1 small prehistoric sherd
N230 E220	1 small prehistoric sherd
TU 38 0-10 cm	1 incised Irene sherd, 1 simple stamped UID prehistoric sherd
TU 38 20-30 cm	1 small prehistoric sherd, 1 tertiary chert flake

prehistoric use of the Fort Stewart and Pine Barren area. First, testing of a Deptford component Woodland site will further understanding of the prehistoric settlement pattern in this area, since, according to Campbell et al. (1996:58-59), no Middle Woodland Deptford period sites have been recorded in this area of the base to date. Second, excavation of 9LI507 can help refine regional chronology in the area by examining the relationship between the cultural materials found at Fort Stewart and those associated with the Savannah River chronology and phase development. Third, further testing will help determine the function of the site, which in turn may help refine predictive modeling at Fort Stewart by examining the relationship of site functions and locations along major drainages.

We recommend close interval testing using 50 cm units and the excavation of several 1 to 2 meter test units in the densest portions of the site. This should provide adequate information on the potential for subsurface features.

9LI508

Site 9LI508, an isolated multicomponent occurrence, is located 40 m west of Fort Stewart Road 47, and approximately 340 m southeast of the intersection of Fort Stewart Road 47 and Fort Stewart Road 144. The site's central UTM coordinates are N3533050 E440580 and the elevation is 18 m AMSL. The site is located on a ridge next to Fort Stewart Road 47 and contains mixed mature hardwoods and oaks.

The isolated occurrence, which measures 1 m^2, was first located on Transect 509, Shovel Test 2 and was tested using a cruciform pattern in cardinal directions from this point (Figure 58). Other than the undecorated pearlware fragment, undecorated whiteware fragment, and secondary chert flake recovered from Shovel Test 2, no artifacts were encountered in the additional eight shovel tests. This occurrence does not possess the data sets necessary for inclusion on the National Register of Historic Places and is recommended as ineligible.

9LI509

9LI509 is a prehistoric site located 1 km west of the intersection of Fort Stewart Roads 47 and 47A, and 280 m east of Taylors Creek. The site sits on a ridge of high land that gradually slopes east and north to the swamp before Taylors Creek. Mixed hardwoods, pines, and a sparse scrub oak understory are associated with the site.

A total of 76 shovel tests were placed in a cruciform pattern from the original positive Shovel Test 36 excavated on Transect 539 (Figure 59). Of these shovel tests, 21 were positive and provided the site boundary, which incorporates 5,600 m^2. The central UTM coordinates are N3532200 E440500 and the elevation is 17 m AMSL.

Forty artifacts were recovered from the positive shovel tests and Test Unit 43, including diagnostic artifacts such as a Savannah Cord Marked sherd and 10 Deptford Cord Marked sherds (Table 37). Two of three sherds from N250 E170 mended. The Deptford sherds suggest that the site dates to Middle Woodland period for both Coastal Georgia and the Middle Savannah Valley.

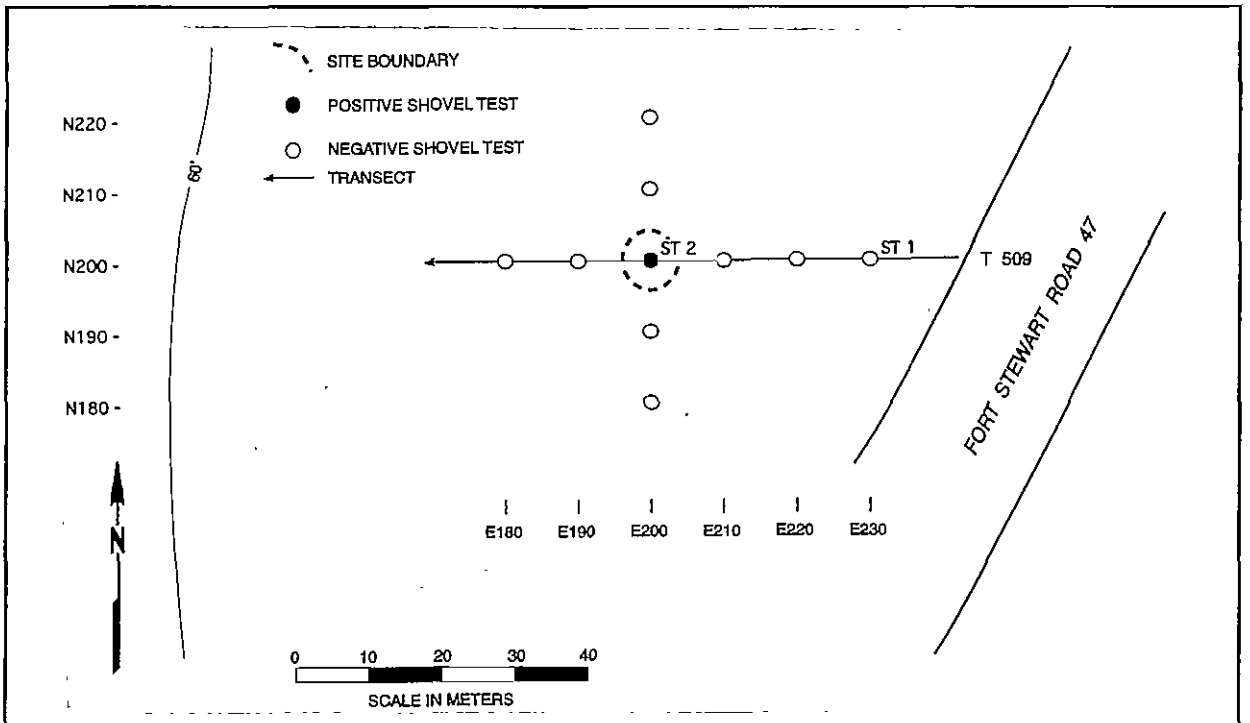

Figure 58. Map of site 9LI508.

Shovel tests were excavated to a depth of at least 60 cm, although in some cases, clay was encountered at 50 cm and shovel testing was terminated. The soil profile for Test Unit 43 consisted of 15 cm of yellowish brown (10YR5/6) loamy sand overlying 45 cm of brownish yellow (10YR6/8) sand. Artifacts were recovered in the top 40 cm of Test Unit 43, and included two Deptford Cord Marked sherds, a tertiary metavolcanic flake and three tertiary chert flakes. The site is located on Osier and Bibb soils, both of which have no B horizon. Osier soils have an A horizon of dark grayish brown (10YR4/2) loamy sand and very dark grayish brown (10YR3/2) loamy sand to 28 cm, while Bibb soils have an A horizon of up to 33 cm of very dark gray (10YR3/1) sandy loam and dark grayish brown (10YR4/2) sandy loam. Neither of these soil profiles matches the profile for Test Unit 43, as both C horizons for Osier and Bibb soils are light brownish gray (10YR6/2) loamy sand, light gray (10YR7/2) sand and gray (10YR5/1) sandy loam.

This site has materials similar to those found at site 9LI507, but fewer diagnostic ceramics. Site 9LI509 is also located in a similar topographic area, indicating that the sites may have served similar functions during the same period. Likewise, site 9LI509 is recommended as potentially eligible (indeterminate) for inclusion on the National Register of Historic Places for many of the same reasons that 9LI507 is recommended.

It most likely contains data sets necessary to address important research questions concerning prehistoric lifeways in the Taylors Creek area of Fort Stewart, where very few Deptford and Middle Woodland sites have been recorded, and the Pine Barren region of Georgia. 9LI509 has the potential to answer significant questions concerning local subsistence, seasonal use of the Taylors Creek area, and reliance on resources from Taylors Creek. Together with testing at 9LI507, the site also has the potential to address the interaction and relationship between the two sites.

9LI514

Site 9LI514, an isolated historic occurrence measuring 1 m², is located 320 m west of Fort Stewart Road 47A, and approximately 850 meters southwest of the intersection of Fort Stewart Roads 47 and 47A. The central UTM coordinates are N3531710 E441020 and the elevation is 18 AMSL.

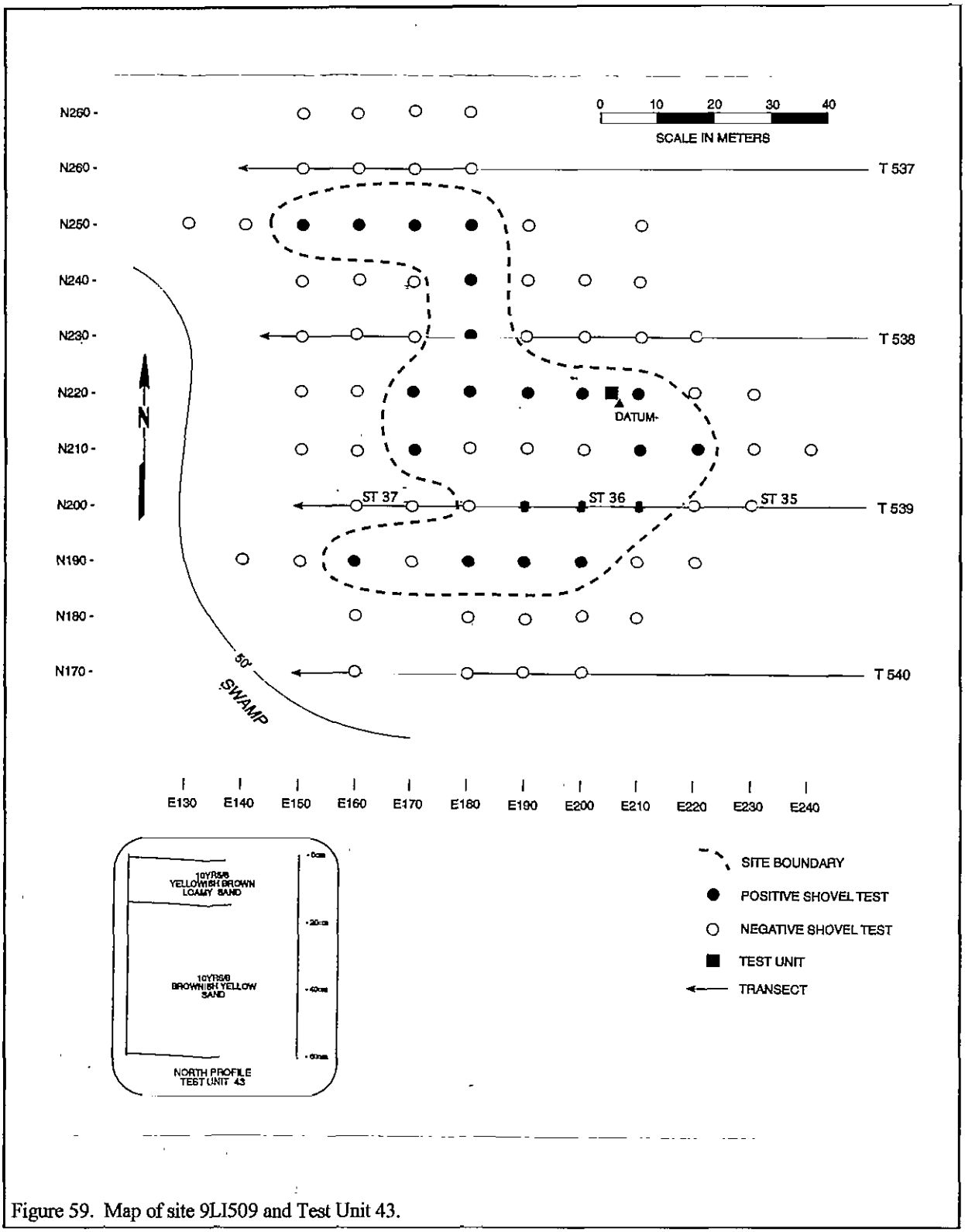

Figure 59. Map of site 9LI509 and Test Unit 43.

The occurrence originated on Transect 559, Shovel Test 12 and was tested using a cruciform pattern in the four cardinal directions from this point (Figure 60). Other than the single undecorated whiteware fragment recovered from Shovel Test 12, no other artifacts were encountered from the additional eight shovel tests. The isolated occurrence is located on a ridge in a clear cut area covered in grass and some scrub oaks near an unnamed dirt road. Site 9LI514 does not possess data sets necessary for inclusion on the National Register and is recommended as not eligible for inclusion.

9LI484

Site 9LI484 is an earthen dam located in Taylors Creek southwest of the survey boundary for NRMU B7.2. The dam is approximately 40 meters high and has been overtaken by pine and cypress tree growth (Figures 61 and 62).

According to Fort Stewart's consulting archaeologist, David McKivergan, the dam was blown up and only a portion of the original dam now exists. Campbell et al. (1996:249-250) note that earthen dams were associated with portable, semi-permanent, and permanent mills common in the early part of the twentieth century. "Waste-away" dams, also associated with mills, were used to flush logs down intermittent streams. When water levels were appropriate, rounded earthen dams were explode with dynamite to release the logs and water.

Because this site is located outside of the survey boundary, it was not tested archaeologically, making the identification of the site's data sets difficult. It is possible that further inspection of the dam and the immediate vicinity may locate early twentieth century artifacts associated with the function of the mill. However, no artifacts were recovered near the survey boundary Until a more thorough examination of the dam is undertaken however, the data sets cannot be discussed.

It is also difficult to address the integrity of site 9LI484 because it was exploded in the twentieth century. This explosion predicates that the dam has suffered extensive damage and may not possess integrity necessary for archaeological investigations.

Despite these circumstances, the site may have the potential to answer significant research questions concerning industry in the Fort Stewart area in the early twentieth century.

Table 37.
Artifacts Recovered from 9LI509

Provenience	Description
N190 E160	1 primary chert flake
N190 E180	1 small prehistoric sherd
N190 E190	1 tertiary chert flake
N190 E200	1 small prehistoric sherd
N200 E190	1 Savannah Cord Marked sherd
N200 E200	1 Deptford Cord Marked sherd
N200 E210	2 small prehistoric sherds
N210 E170	1 small prehistoric sherd
N210 E210	1 small prehistoric sherd
N210 E220	2 small prehistoric sherds
N220 E170	1 small prehistoric sherd
N220 E180	1 small prehistoric sherd
N220 E190	1 UID plain prehistoric, 1 small prehistoric sherd
N220 E200	1 small prehistoric sherd
N220 E210	1 UID plain prehistoric, 1 small prehistoric sherd, 1 chert chunk
N230 E180	1 small prehistoric sherd
N240 E180	1 small prehistoric sherd
N250 E150	1 small prehistoric sherd
N250 E160	1 small prehistoric sherd
N250 E170	6 Deptford Cord Marked sherds
N250 E180	1 Deptford Cord Marked sherd, 1 tertiary flake
TU 43 10-20 cm	1 Deptford Cord Marked sherd
TU 43 20-30 cm	1 Deptford Cord Marked sherd, 1 tertiary metavolcanic flake
TU 43 30-40 cm	3 tertiary flakes

This site is recommended as indeterminate ("potentially eligible") for inclusion on the National Register of Historic because it has not been examined archaeologically, and because more of the site may be located in other survey tracts.

Sites located in Survey Tract NRMU B7.3

Only two isolated occurrences, one prehistoric and one historic, were recorded in NRMU B7.3 (Figure 63). This survey tract is located directly south of B7.2, where three potentially eligible (indeterminate) sites were located, although no comparable sites were located in this tract.

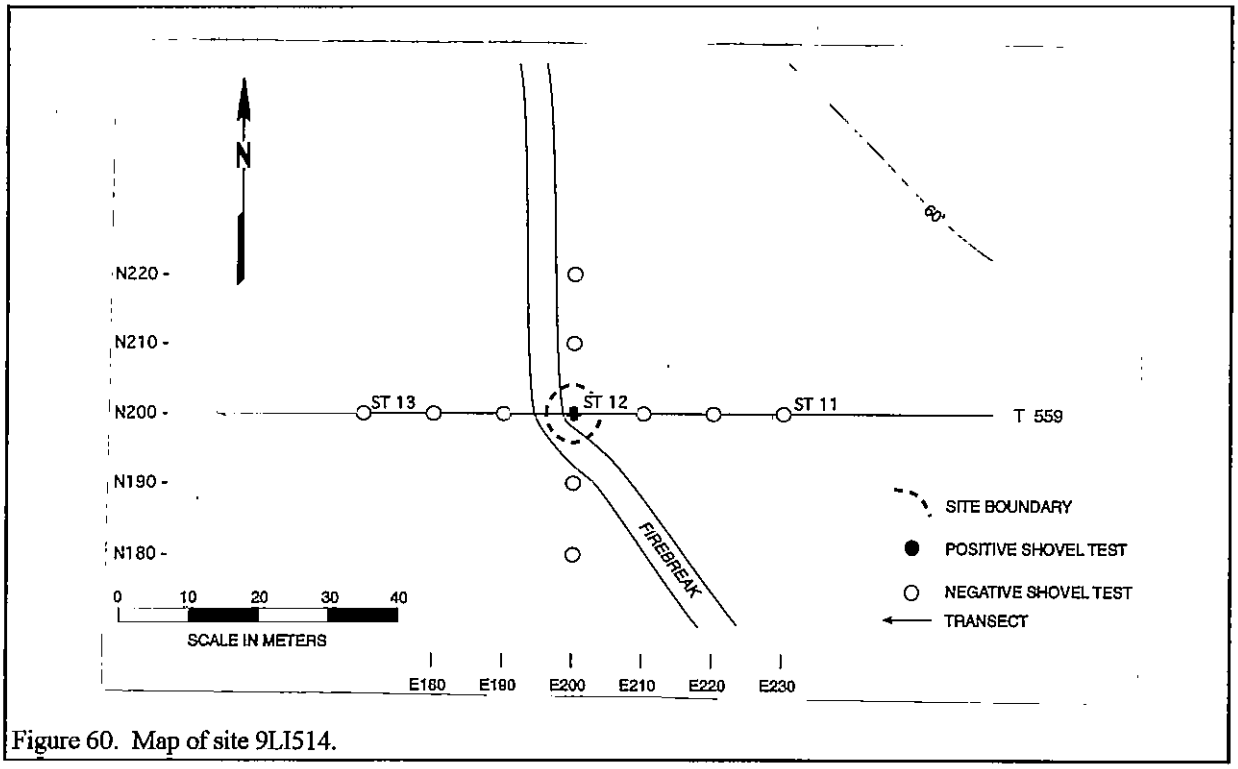

Figure 60. Map of site 9LI514.

9LI515

Site 9LI515, an isolated historic find, is located 200 m south of Fort Stewart Road 47A, and approximately 1.4 km southwest of the intersection of Fort Stewart Roads 47 and 47A. The find's central UTM coordinates are N3531300 E440920 and the elevation is 18 m AMSL. 9LI515 is located on Johnston and Bibb series soils, which are very poorly drained.

The find originated on Transect 631, Shovel Test 10 and was tested using a cruciform pattern in the four cardinal directions from this point (Figure 64). Other than the small prehistoric sherd recovered from Shovel Test 10, no other artifacts were encountered from the eight additional shovel tests. The find is located on a relatively flat, forested area with planted pines and mixed hardwoods. This find does not possess data sets necessary for inclusion on the National Register of Historic Places and is recommended as not eligible.

9LI516

Site 9LI516, an isolated historic occurrence, is located 280 m south of Fort Stewart Road 47A, and approximately 780 m southeast of the intersection of Fort Stewart Roads 47 and 47A. The central UTM coordinates are N3531420 E441380 and the elevation is 19 m AMSL. Site 9LI516 is located on Mandarin fine sand, which is a somewhat poorly drained soil.

The find, measuring 1 m^2, originated on Transect 666, Shovel Test 8 and was tested using a cruciform pattern in the four cardinal directions from this point (Figure 64). Other than the single manganese glass fragment recovered from Shovel Test 8, no other artifacts were encountered in the eight additional shovel tests. The find is located on a relatively flat area with a dense scrub oak and scrub palmetto growth. This isolated occurrence does not possess data sets necessary for inclusion on the National Register of Historic Places and is recommended as not eligible.

Sites Recorded in Survey Tract NRMU E6.3

Survey tract NRMU E6.3 was designated a walkover area, barring any subsurface testing of the area due to the presence of unexploded ordnance. The Georgia State Historic Preservation Officer has

Figure 61. View of site 9LI484 from the south.

Figure 62. View of site 9LI484 from the east.

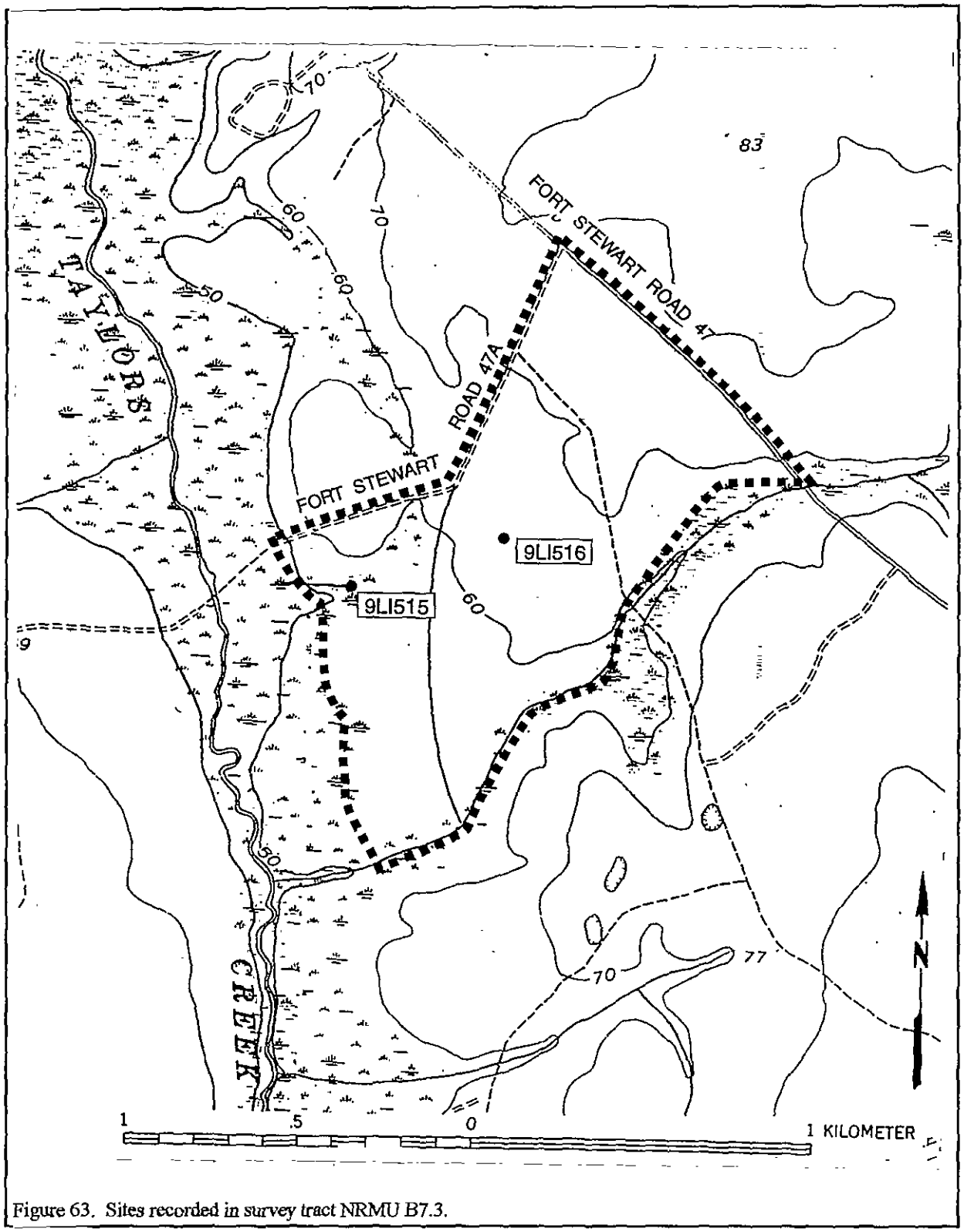

Figure 63. Sites recorded in survey tract NRMU B7.3.

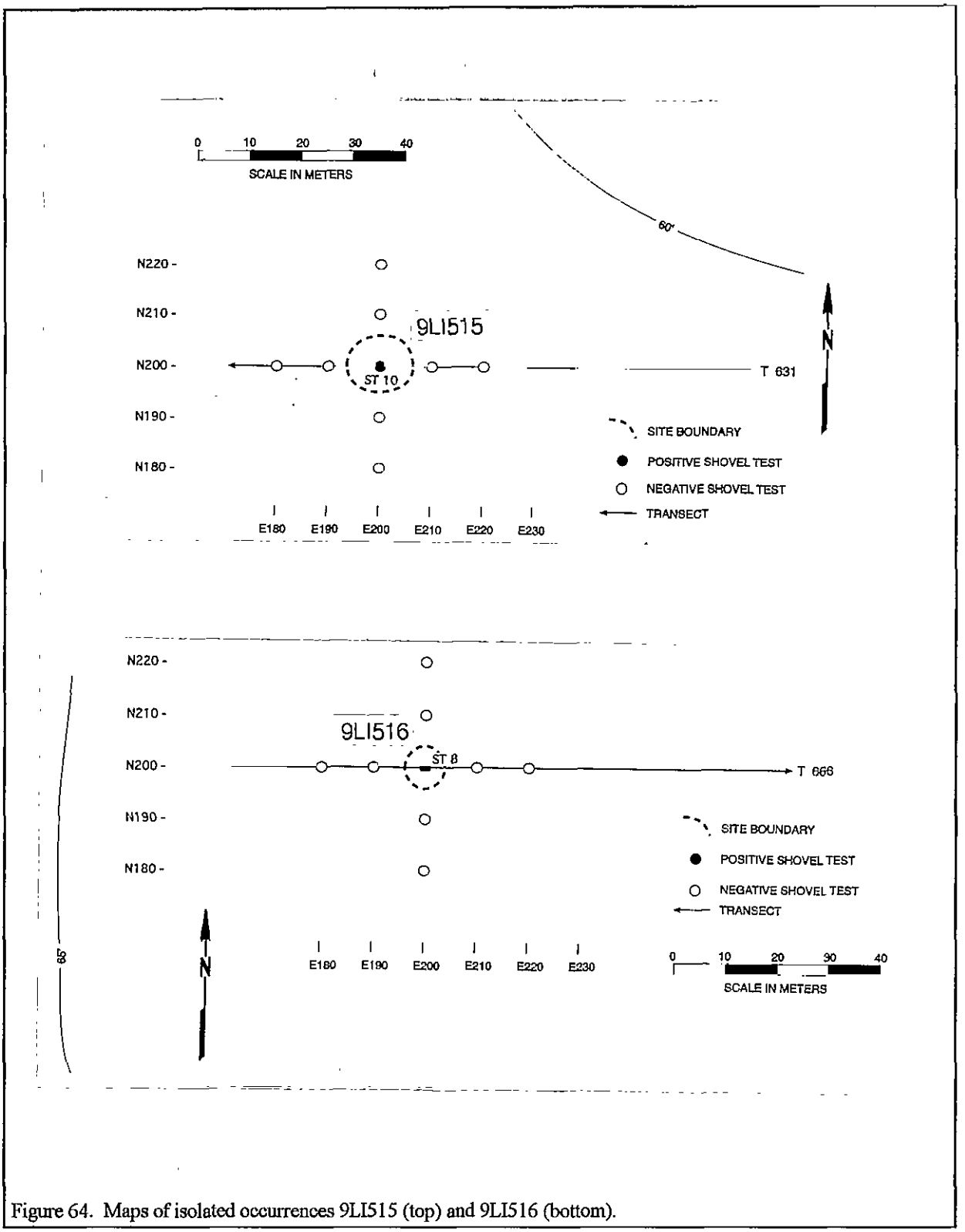

Figure 64. Maps of isolated occurrences 9LI515 (top) and 9LI516 (bottom).

designated sites found in areas that contain unexploded ordnance as ineligible for the National Register of Historic Places.

A single historic site was located in this survey tract (Figure 65). The tract was heavily used by military vehicles such as tanks, personal carriers, and trucks during the time of the survey.

9LI513

Site 9LI513 is located 420 m north of Fort Stewart Road 144, and 800 m northwest of Fort Stewart Roads 144 and 30. This site was located in the eastern portion of the tract. Central UTM coordinates are N3534740 E431780 and the elevation is 27 m AMSL. No subsurface testing was conducted at this site, therefore soil conditions can not be addressed.

Mixed hardwoods and planted pines cover the site which is located on a relatively flat ground. The nearest source of water is an unnamed branch of the Canoochee Creek approximately 540 m north of the site. The surrounding area has been extensively used by military personnel and vehicles, most likely damaging the site's integrity. The site was first located 20 m west of Surface Collection 15 on Transect 14, where five decalcomania whiteware fragments and an undecorated whiteware fragment were noted. Four of the decalcomania fragments mend to form a single piece. In order to test the surrounding areas, four 10 m surface collection units were examined, but contained no artifacts. Based on the collection of these artifacts, the site measures 1 m^2 (Figure 66). Whiteware decalcomania was manufactured between 1901 and 1950.

The Georgia State Historic Preservation Officer has determined that sites located in areas that contain unexploded ordnance are not eligible for inclusion on the National Register of Historic Places.

Sites Recorded in Survey Tract NRMU E8.3

A total of seven sites were located in survey tract NRMU E8.3, including a previously recorded site (Figure 67). The other six sites include two isolated historic occurrences, an isolated prehistoric occurrence, a historic cemetery, and three historic sites. The survey tract is located off of Fort Stewart Roads 23 and Georgia State Highway 129.

9LI338

Site 9LI338 was first recorded in July 1995 by David McKivergan of Bregman and Company, Inc. as an historic house site located on both sides of Fort Stewart Road 85. The intersection of Fort Stewart Road 85 and Georgia State Highway 129 is located 450 km southeast of the site. The UTM coordinates were recorded as N3541150 E431740 and an elevation of 27 m AMSL.

The site measured 30 m by 30 m, or 900 m^2. A surface survey was conducted, but artifacts that were collected are not listed on the site form. The site was recommended ineligible for inclusion on the National Register of Historic Places.

The majority of the site, as recorded in 1995, seems to be located on the northern side of Fort Stewart Road 85, which is outside of this survey boundary. The site is located on relatively flat land interspersed with sparse grasses, scrub oaks, and a few mixed hardwoods. The site was relocated on the basis of a positive surface collection (N200E200) next to Fort Stewart Road 85. The central UTM coordinates are N3541140 E431740 and the elevation is 27 m AMSL.

Shovel tests were excavated at 10 m intervals in cardinal directions from the positive surface collection at N200 E200, including a shovel test placed at this location. Seven shovel tests, including Shovel Test 2 on Transect 788, produced a total of four artifacts, including an undecorated whiteware with an unidentified marker's mark, two Bristol glazed stonewares and a black glass crown cap lip. The site represented in this part of the survey tract measured 20 m^2 (Figure 68). As the majority of the site north of Fort Stewart Road 85 is recommended as ineligible, we concur that this portion of the site also is recommended as ineligible for inclusion on the National Register of Historic Places.

9LI510

Site 9LI510 is located 1.8 km northeast of the intersection of Fort Stewart Road 23 and Georgia State Highway 129. The site is adjacent to Fort Stewart Road 22 and is located on relatively flat land with sparse grasses and a few large, mature oaks. West of the site, and the area becomes forested with mixed hardwoods and planted pines. A large amount of military trash was noted at the site. The site incorporates 240 m^2 and the central UTM coordinates are N3540940 E431060. The

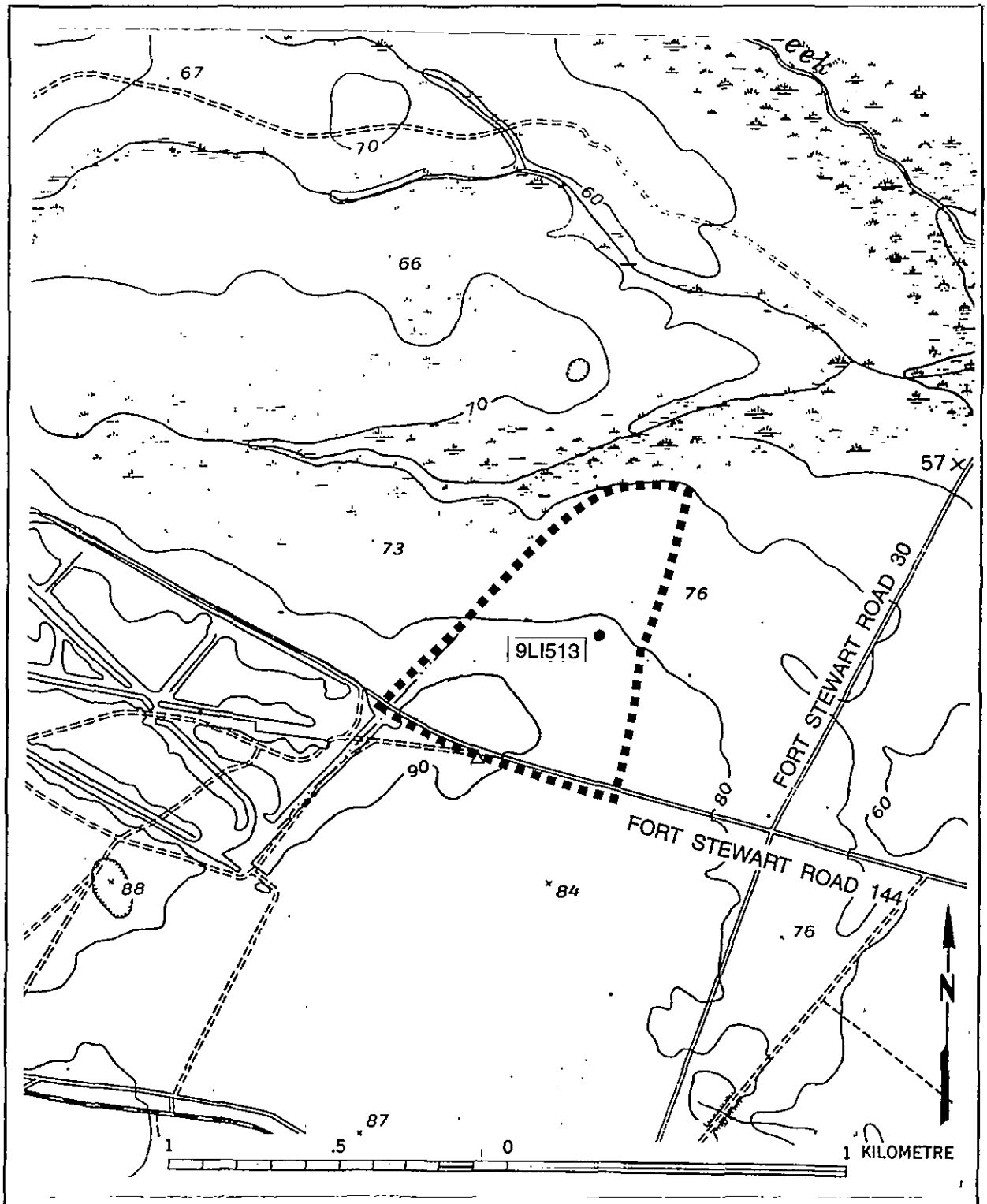

Figure 65. Sites recorded in survey tract NRMU E6.3.

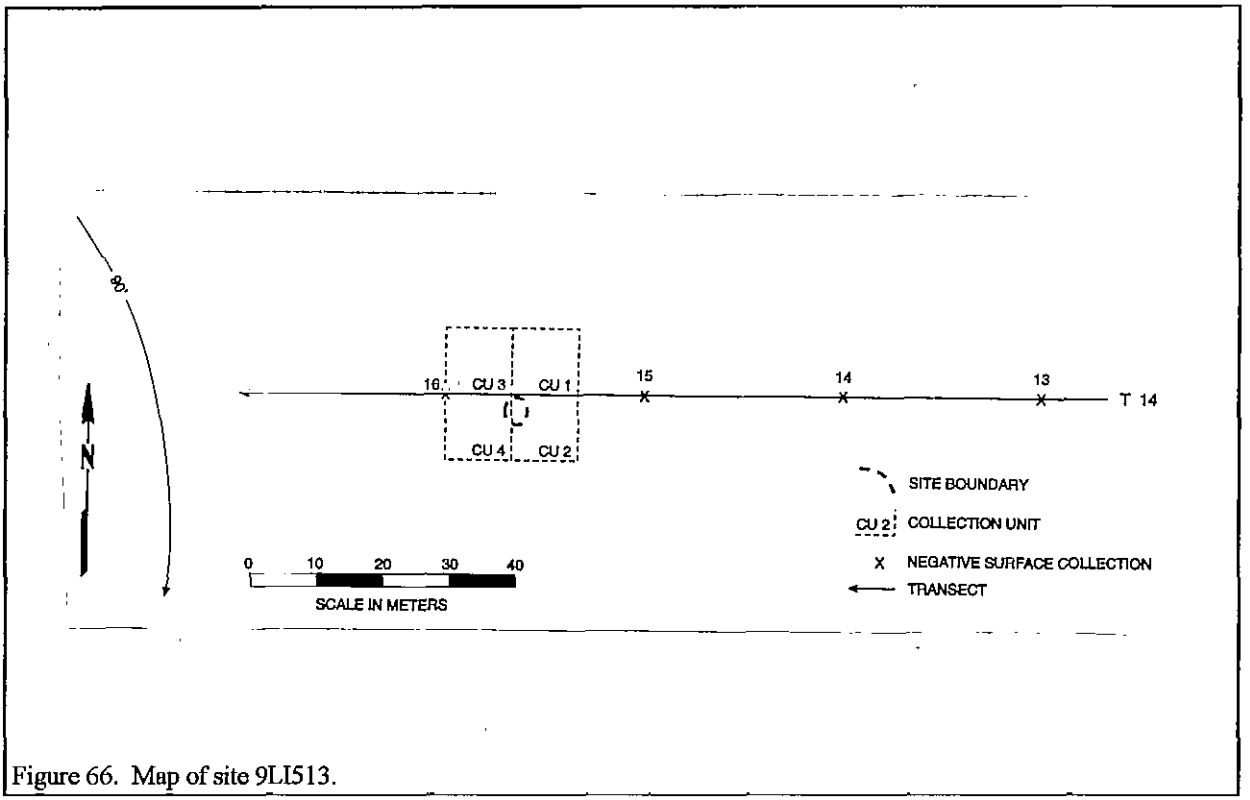

Figure 66. Map of site 9LI513.

elevation is 27 m AMSL.

Shovel tests were excavated at 10 m intervals in cardinal directions from positive Shovel Test 1 on Transect 273 (Figure 69). All tests were excavated to a depth of at least 30 cm below the surface, with subsoil generally reached at this level. Of 19 shovel tests, four yielded a total of 11 artifacts, including two milk glass preserve jar lids, a 12d wire cut nail, and a small brass buckle measuring 1½" long by 1¼" wide (Table 38). Shovel Test N190 E200 contained layers of brick below the surface of the ground, although it did not appear be a foundation. Test Unit 49 was placed at N195 E195 and contained the largest percentage of artifacts, in addition to large amounts of brick that were recorded, but not collected. Only three datable ceramics were recovered, which do not permit the mean ceramic date to be calculated with accuracy.

Table 38.
Artifacts Recovered from 9LI510

Provenience	Description
N190 E180	1 milk glass, 1 window glass, 1 UID nail fragment
N190 E190	1 burnt stoneware
N190 E200	2 aqua glass, 1 clear glass
N200 E200	2 undecorated whiteware, 2 melted glass
TU 49 0-10 cm	1 Bristol glaze stoneware, 1 alkaline glaze stoneware, 1 aqua glass, 7 clear glass, 1 wire cut nail
TU 49 10-20 cm	1 undecorated whiteware, 1 brown glass, 1 milk glass, 1 aqua glass, 7 clear glass
TU 49 20-30 cm	2 aqua glass, 3 clear glass, 7 melted glass, 2 UID nails, 1 brass buckle

The soil profile from Test Unit 49, a 50 by 50 cm unit, consisted of 30 cm of brown (10YR4/3) loamy sand overlying 30 cm of brownish yellow (10YR6/6) sand. The soils are classified as Fuquay loamy sand which typically have an A horizon of 74 cm of dark grayish brown (10YR4/2) loamy sand and brownish yellow (10YR6/6) sand overlying a B horizon 1.9 m of brownish yellow (10YR6/6) sandy loam and sandy clay

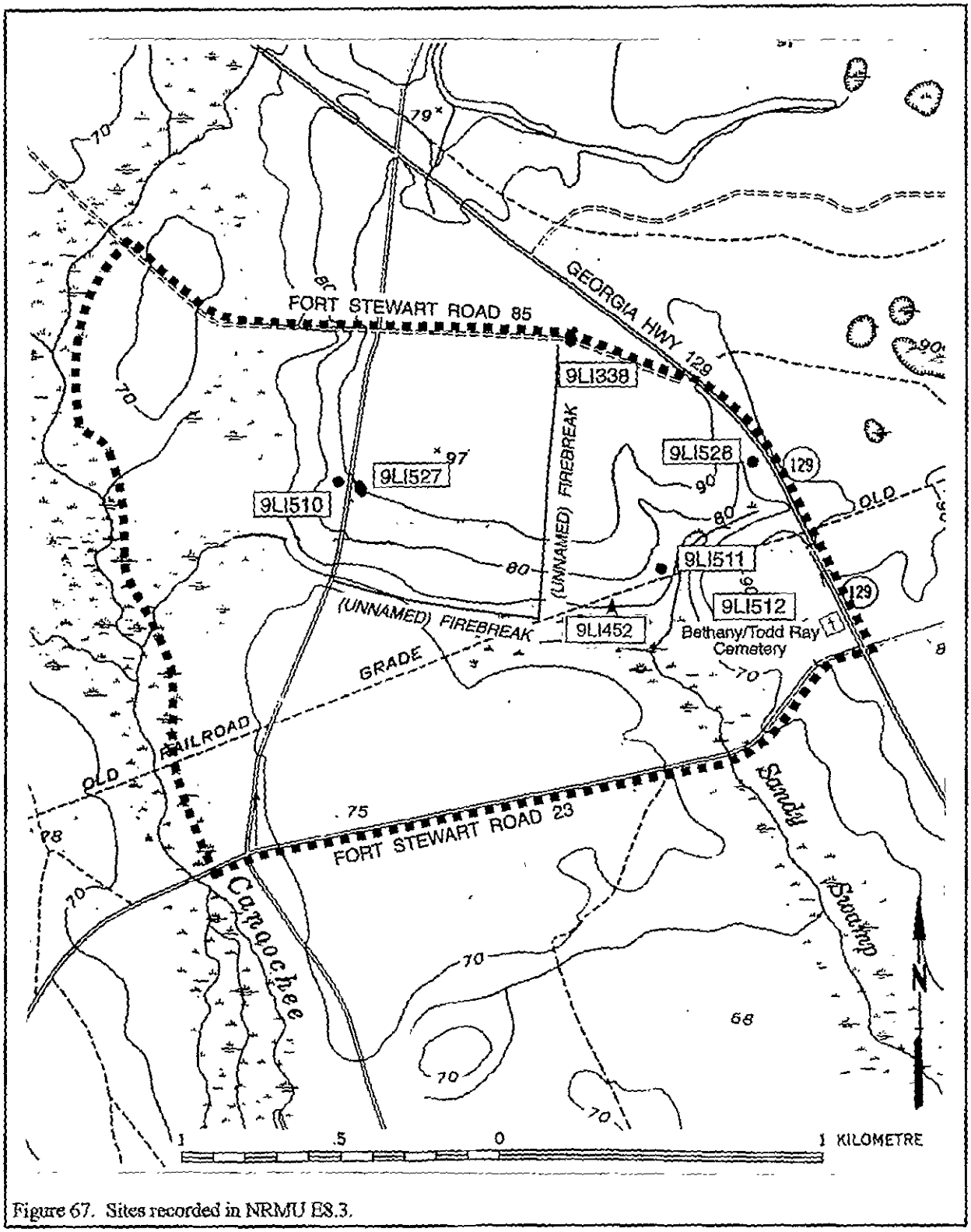

Figure 67. Sites recorded in NRMU E8.3.

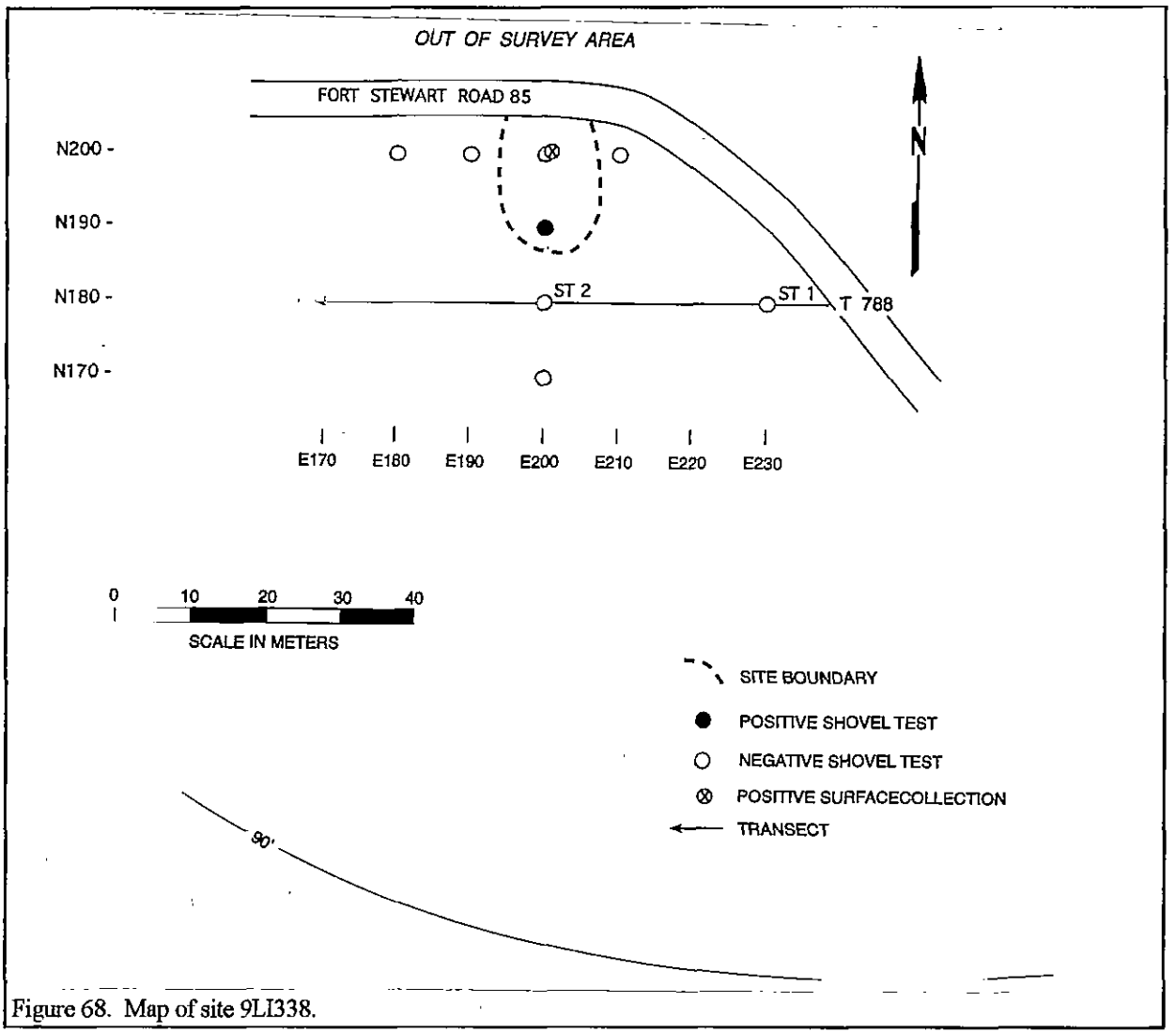

Figure 68. Map of site 9LI338.

loam, and mottled sandy clay loams.

This site does not possess the data sets necessary to address significant research questions and is recommended as ineligible for the National Register of Historic Places.

9LI511

Site 9LI511, an isolated prehistoric occurrence which incorporates 1 m², is located 500 m west of Georgia State Highway 129, and approximately 700 meters northwest of the intersection of Georgia State Highway 129 and Fort Stewart Road 23. The find's central UTM coordinates are N3540400 E431900 and the elevation is 24 m AMSL. Site 9LI511 is located on Johnston and Bibb soils, which are very poorly drained.

The find originated on Transect 811, Shovel Test 2 and was tested using a cruciform pattern in cardinal directions from this point (Figure 70). Other than the two mended chert tertiary flakes recovered from Shovel Test 2, no other artifacts were encountered in the additional eight shovel tests. Shovel tests were dug to at least 65 cm, with subsoil generally encountered at 40 cm. The find is located on a relatively flat area 30 meters from the Old Railroad Grade. The area is forested with planted pines and mixed hardwoods. This find does not possess

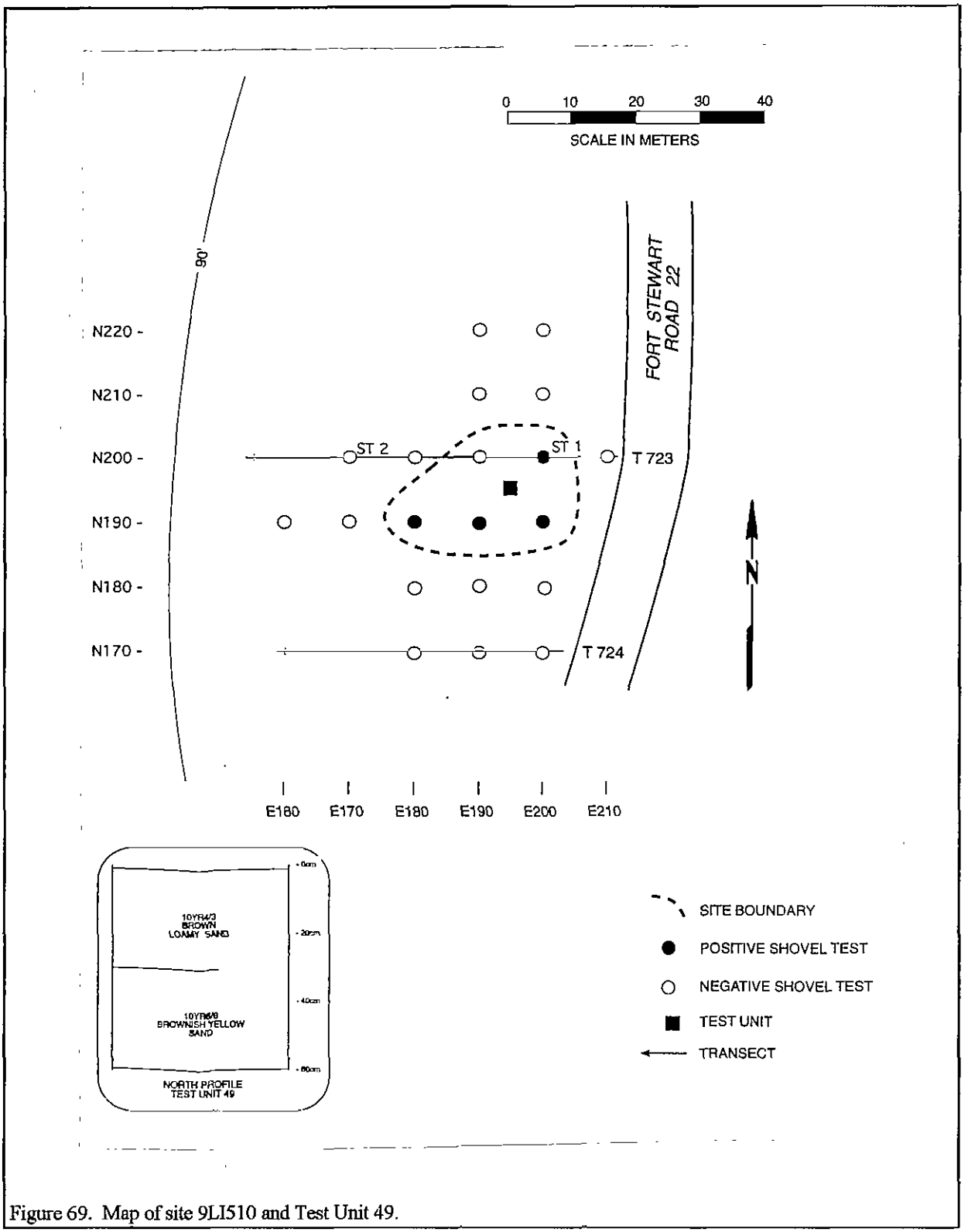

Figure 69. Map of site 9LI510 and Test Unit 49.

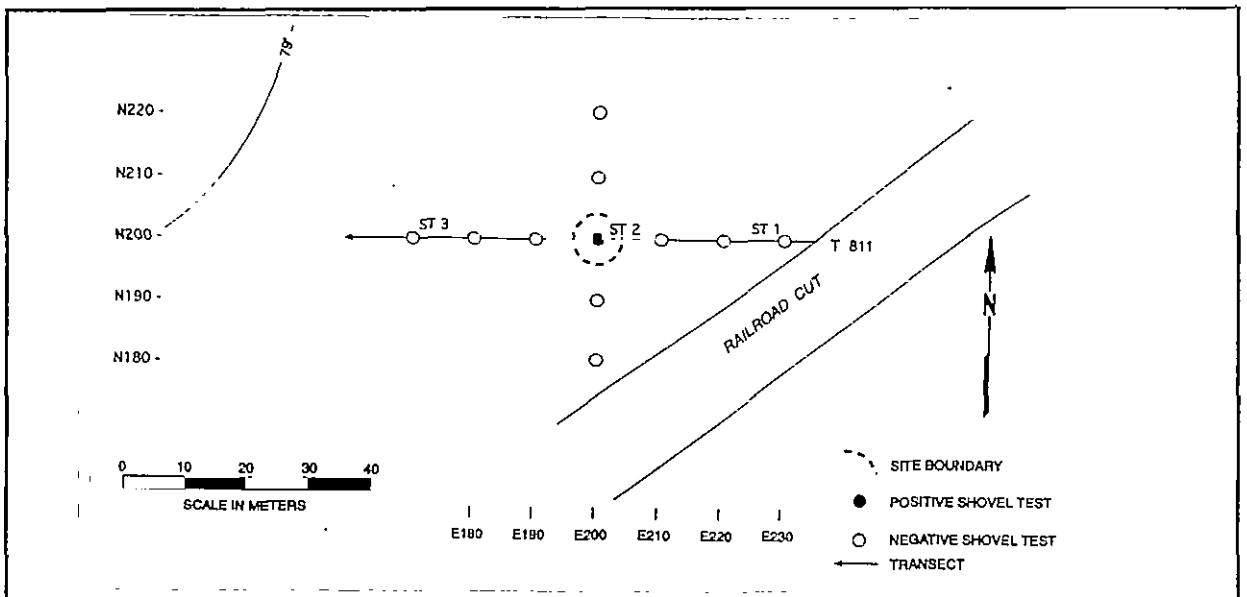

Figure 70. Map of site 9LI511.

the data sets necessary for inclusion on the National Register of Historic Places and is recommended as not eligible.

9LI512

Site 9LI512 is the historic Bethany cemetery located adjacent to Georgia State Highway 129, approximately 100 m from the intersection of Georgia State Highway 129 and Fort Stewart Road 23. The area in front of the cemetery is cleared and is used as a turnaround for vehicles (Figure 71). There is some confusion about the name of the cemetery, as it appears as the Todd Ray Cemetery on the Fort Stewart Military Installation Map (series V745S, edition 3-DMA), while the sign in front of the cemetery reads Bethany Cemetery. A number of gravestones in the cemetery bear the names Todd and Ray (Figure 72), although Consulting Base Archaeologist David McKivergan explained that this cemetery is associated with the old Bethany Church located in the area, which is no longer standing. The cemetery has central UTM coordinates of N3540220 E432480 and an elevation of 27 m AMSL.

The cemetery is bounded by a chain link fence, with overall measurements of 38 m by 26 m, and is accessed by a yard gate (Figure 73). The cemetery was tested for unmarked graves using a pentrometer which measures soil compaction every three feet and outside of the fence. The tip of the pentrometer is inserted into the ground and the dial indicator registers the pounds per square inch (or psi). Soils that register less than 150 psi are considered less compact than the surrounding area and most likely represent unmarked graves. A total of 10 unmarked and 44 marked graves were recorded, with only one unmarked grave located right beside the fence. All information inscribed on the 44 gravestones was recorded on individual marker sheets which have been curated with the field notes for this project. A few of the graves were decorated with silk flowers. Grave number 28 is enclosed with red brick coping oriented. Many of the gravestones have deep cracks and are misaligned. Graves have been interred in the last 20 years, with the last marked grave indicating burial in 1987 (Grave 49).

National Register Bulletin 41 indicates that cemeteries can and should be assessed under criteria D because they yield or may be likely to yield information important in history. Cemeteries evaluated under Criterion D (except for the graves of significant persons) do not need to meet the special requirements of the Criteria Considerations (Potter and Boland 1992:16). This cemetery is recommended as potentially eligible (or indeterminate) for inclusion on the National Register under criteria D. A cemetery can provide important information concerning socioeconomic status, social organization, trade, and business patterns, without

Figure 71. Photograph of Bethany-Todd Ray Cemetery facing east.

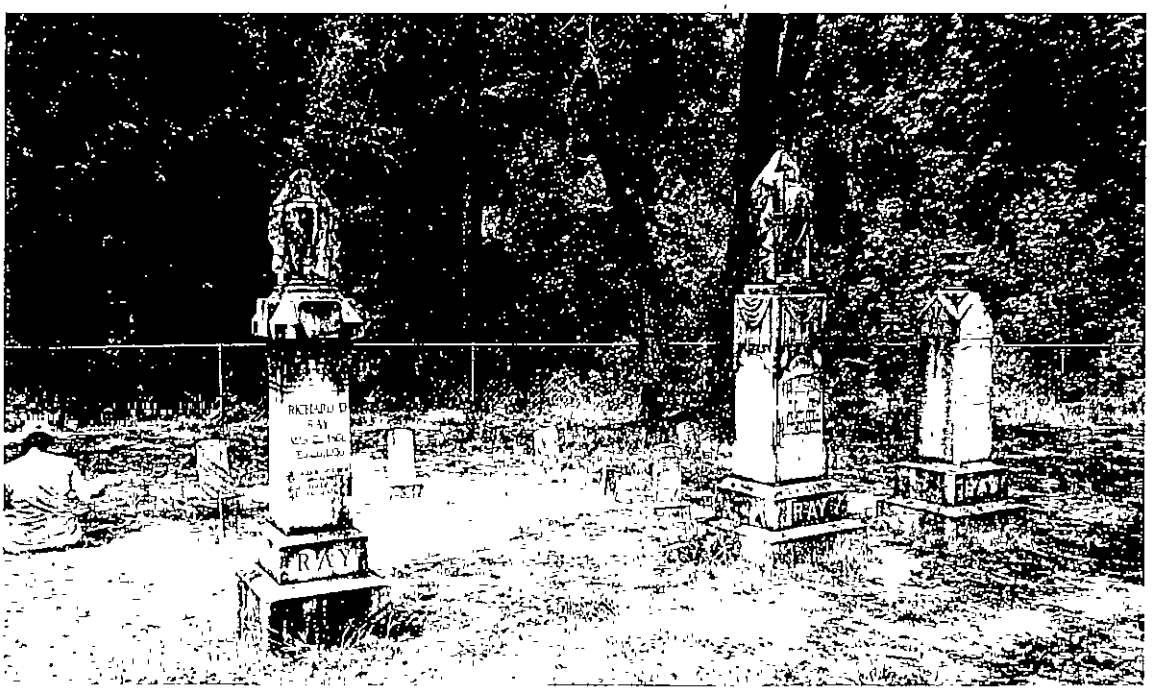

Figure 72. Ray markers in Bethany-Todd Ray cemetery, facing east.

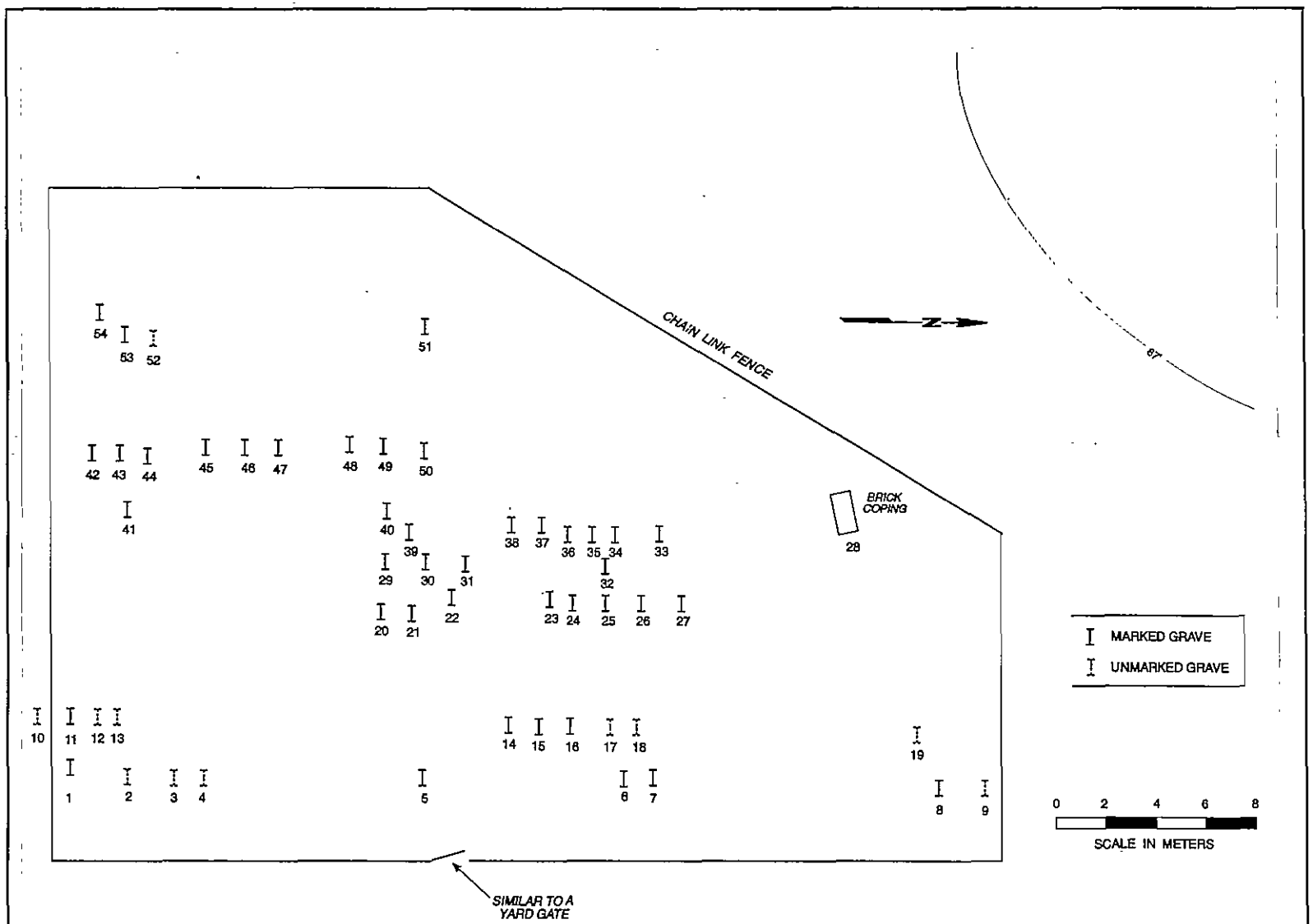

Figure 73. Map of site 9LI512, Bethany-Todd Ray Cemetery.

excavating any of the associated burials.

Two additional reasons contribute to a cemetery's eligibility. First, if the cemetery must be moved at any time and no archaeological investigation takes place, biocultural and archaeological information will be lost. Second, cemeteries made eligible will ensure that data sets are not damaged or destroyed by cemetery maintenance activities, such as refurbishing fences.

9LI527

Site 9LI527 is located adjacent to Fort Stewart Road 22, 1.2 km northeast of the intersection of Fort Stewart Roads 22 and 23. The site is located on a slight rise between Fort Stewart Road 22 and a large cleared area surrounding a borrow pit (Figure 74). Site 9LI527 is located across Fort Stewart Road 22 from Site 9LI510 and these two sites may have at one time represented a single house site. However, since these two areas are divided by a road, which does appear on the 1918 Hinesville map of the area, we have chosen to record them as two separate sites.

Table 39.
Artifacts Recovered from 9LI527

Provenience	Description
N160 E190	7 Bristol glazed stoneware
N180 E180	1 undecorated whiteware, 4 clear glass
N180 E190	1 manganese glass, 5 clear glass, 1 window glass
N180 E200	1 Bristol glazed stoneware, 1 aqua glass, 1 clear glass, 3 oyster shell fragments
N180 E210	2 undecorated whiteware
N200 E190	2 aqua glass, 2 melted glass, 1 machine cut nail fragment
N200 E200	2 undecorated whiteware, 3 annular yellowware, 1 wire cut nail
N210 E200	1 Bristol glazed stoneware, 1 window glass
N210 E210	1 undecorated whiteware, 2 window glass
N220 E190	1 undecorated whiteware, 1 undecorated porcelain, 1 melted glass
N220 E200	1 undecorated whiteware, 1 manganese glass
N230 E180	3 window glass
N230 E190	1 undecorated whiteware, 1 clear glass, 1 melted glass, 1 window glass
N230 E200	1 aqua glass, 1 clear glass
TU 50 0-10 cm	6 undecorated whiteware, 1 aqua glass, 1 melted glass, 1 wire cut nail
TU 50 10-20 cm	1 undecorated whiteware, 1 green glass, 4 manganese glass, 3 clear glass, 2 window glass
TU 50 20-30 cm	1 undecorated porcelain, 3 green glass, 2 window glass

Table 40.
Mean Ceramic Date for 9LI527

Ceramic	fi	xi	fi x xi
Whiteware, undecorated	16	1860	29760
Yellowware, annular	3	1853	5559
	19		35319

3.5319 ÷19=1858.89

Vegetation at 9LI527 consists of planted pines and mixed hardwoods. The site is heavily disturbed, with mounds of disturbed soil on both the east and west sides of the site, with the mound on the western side containing bricks and brick fragments (Figure 75). A foxhole is located east of the site, near Shovel Test N180 E210. A number of shovel tests could not be dug because these tests fell on mounds, or in the foxhole, which including shovel tests that would have been placed at N180 E220-230, N180 E160, N190 E210, N220 E220, N220 E170, N240 E180, N250 E180 and N230 E220. Testing defined the site dimensions as measuring 2,100 m². Central UTMs coordinates for the site are N3541010 E431100 and the elevation is 27 m AMSL.

Shovel tests were excavated at 10 m intervals in cardinal directions from positive Shovel Test 2 on Transect 777. Of 42 shovel tests, 14 yielded a total of 57 artifacts, representing a range of historic artifacts, such as whiteware, stoneware, window glass, porcelain, 8d and 10d wire nails, and glass fragments (Table 39). Twenty-six historic artifacts were also recovered from Test Unit 50. These artifacts date to the late nineteenth century, with a mean ceramic date of 1858 (Table 40). Test Unit 50, a 50 by 50 cm unit, was placed in the area of the site that seemed to have the greatest cluster of positive shovel tests. The location of the site is consistent with the location of as a structure on the 1918 Hinesville edition quad map and may represent a domestic site.

All shovel tests were excavated to a depth of at least 40 cm, with subsoil generally reached at 30 cm. Test Unit 50 was excavated to a level of only 30 cm because a hard packed, yellowish red (5YR4/6) clay was

Figure 74. Borrow pit located east of Site 9LI527.

encountered at 30 cm (higher in the western portion of the unit). This clay was overlain by 20 cm of brownish yellow (10YR6/6) sand and 10 cm of yellowish brown (10YR5/2) loamy sand. The soils are classified as Fuquay loamy sand which typically has an A horizon of 74 cm of dark grayish brown (10YR4/2) loamy sand and brownish yellow (10YR6/6) sand overlying a B horizon 1.9 m of brownish yellow (10YR6/6) sandy loam, sandy clay loam, and mottled sandy clay loam. The appearance of the clay is inconsistent with information provided for Fuquay soils, suggesting that the area has been highly disturbed.

Data sets present at 9LI527 include ceramic and glass kitchen group artifacts, nails, window glass, and brick rubble in the architecture group artifacts, and an oyster shell that may have been brought into the area. Site 9LI527 lacks other data sets, including construction hardware, architectural ruins, furniture hardware, clothing and personal group artifacts, construction tools, or farm tools. Subsistence data sets, such as ethnobotanical and faunal remains, are also absent from the site. Without these data sets, the types of research questions site 9LI527 could answer are limited. For example, with so few architectural artifacts, questions regarding the possible function of the site are difficult to address. In addition, the data sets present at the site do not appear to provide precise chronological control, which would be needed to address research questions.

In addition to the disturbance caused by borrow pit excavation and use, the soil profiles suggest that the site has undergone severe erosion and redeposition. These types of disturbance suggest that data sets at site 9LI527 are not well preserved, further limiting the site's ability to address significant research questions.

Based on these analyses, site 9LI527 is recommended as ineligible because it does not possess data sets necessary to address significant research questions, and has not retained integrity necessary for inclusion on the National Register of Historic Places.

9LI528

Site 9LI528, an isolated historic find, is located 10 m west of Georgia State Highway 129, approximately 680 m northeast of the intersection of Georgia State

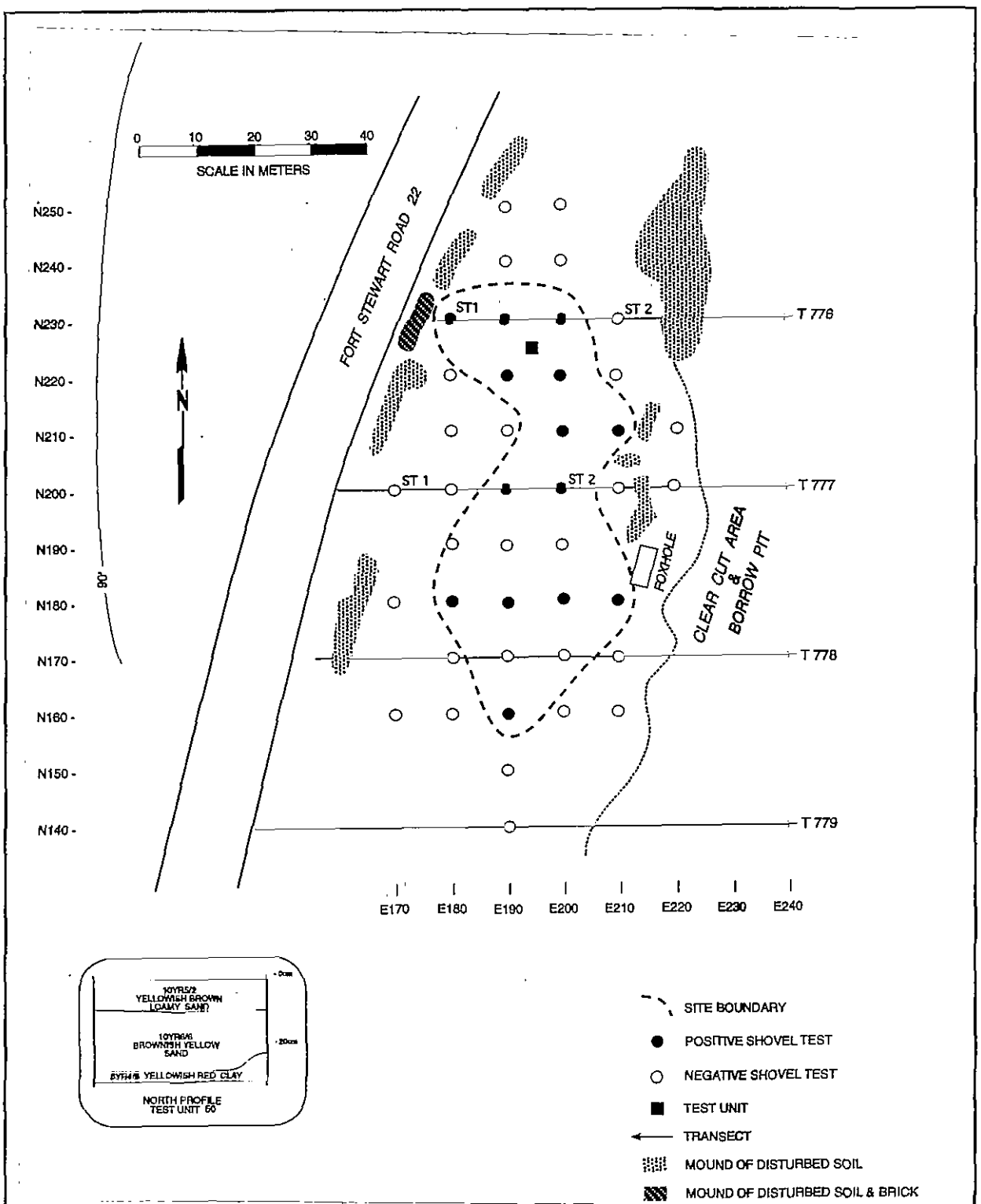

Figure 75. Map of site 9LI527 and north profile of Test Unit 50.

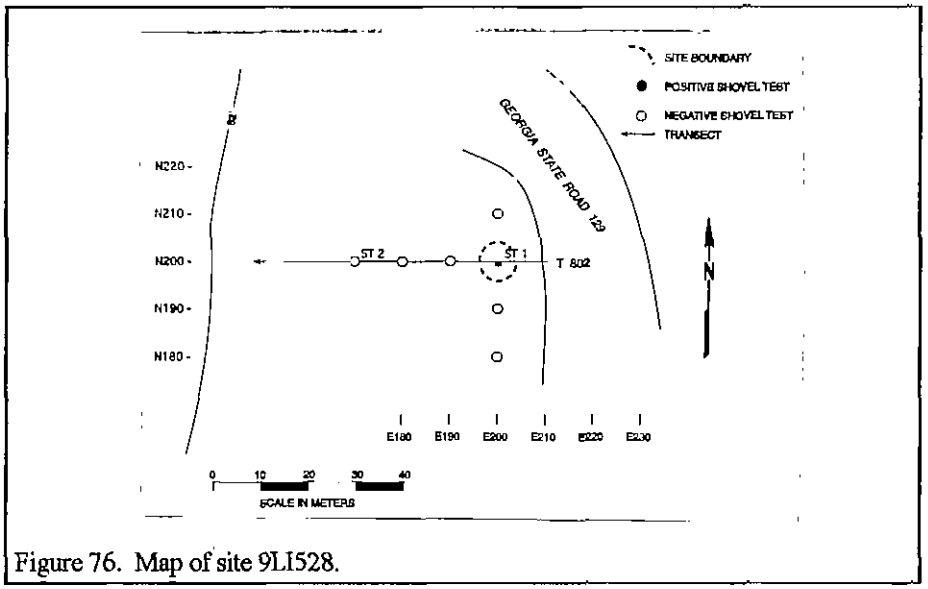

Figure 76. Map of site 9LI528.

Highway 129 and Fort Stewart Road 23. The find's central UTM coordinates are N3540750 E432280 and the elevation is 24 m AMSL. Site 9LI528 is located on Leefield loamy sand, a somewhat poorly drained soil.

The find originated on Transect 802, Shovel Test 1 and was tested using a cruciform pattern in cardinal directions from this point (Figure 76). Other than the undecorated whiteware, Albany glazed exterior stoneware fragment, and clear glass fragment recovered from Shovel Test 1, no other artifacts were encountered in the five additional shovel tests. The find is located on a relatively flat area and includes planted pines, mixed hardwoods and a dense underbrush. This find does not possess the data sets necessary for inclusion on the National Register of Historic Places and is recommended as not eligible.

9LI452

Site 9LI452 is a railroad bed which bisects the survey tract (Figure 77). The site's UTM coordinates, taken from an eastern portion of the bed which was still partially visible, are N3540380 E431960.

The railroad bed runs roughly southwest to northeast through the tract. In the eastern portion of the tract, the railroad bed is visible from Highway 129 for approximately 750 meters. No associated ties, sleepers, tracks, or other associated artifacts were located in the survey tract. The bed is completely overgrown with vegetation (Figure 78) in all areas where the bed is visible.

Site 9LI452 is also located in Long county, and is recorded as 9LG149. According to the Georgia Historic Preservation Division, these railroad beds meet the National Register definition of a historic structure, with or without tracks, dependent on the integrity of location, design, materials, and setting (Historic Preservation Division:1995).

The data sets present at site 9LI452 consist entirely of the railroad bed, which measures approximately 4 m wide. The site lacks archaeological data sets such as ties, sleepers, construction hardware, or any other materials used in the construction and maintenance of railroads.

The historic context of the railroad is well documented in the FSHPP (Campbell et al. 1996:127). This rail bed represents part of the Savannah and Southern Railroad (Hinesville and Pembroke quad maps, 1918 and 1920), which was owned by William Tuten, a timber man, and extended to include Letford, Strumbay, and Willie towns. Railroads allowed the lumber and turpentine industries to flourish in this part of Georgia after the Civil War, and many small communities grew up around the railroad lines.

As the Georgia State Historic Preservation Division has noted, railroads offer the opportunity to study the methods and materials used to construct earthen rail beds, the location and identity of buildings and structures along the rail line, and the location and function of maintenance and repair yards. The Georgia State Historic Preservation Division has also noted that rail beds must retain integrity of design, location, materials, and setting in order to meet National Register Criterion C, Criterion A, or Criteria D. In NRMU E8.3, 9LI452 has not retained the integrity of design, materials, or setting necessary to meet the above criterion.

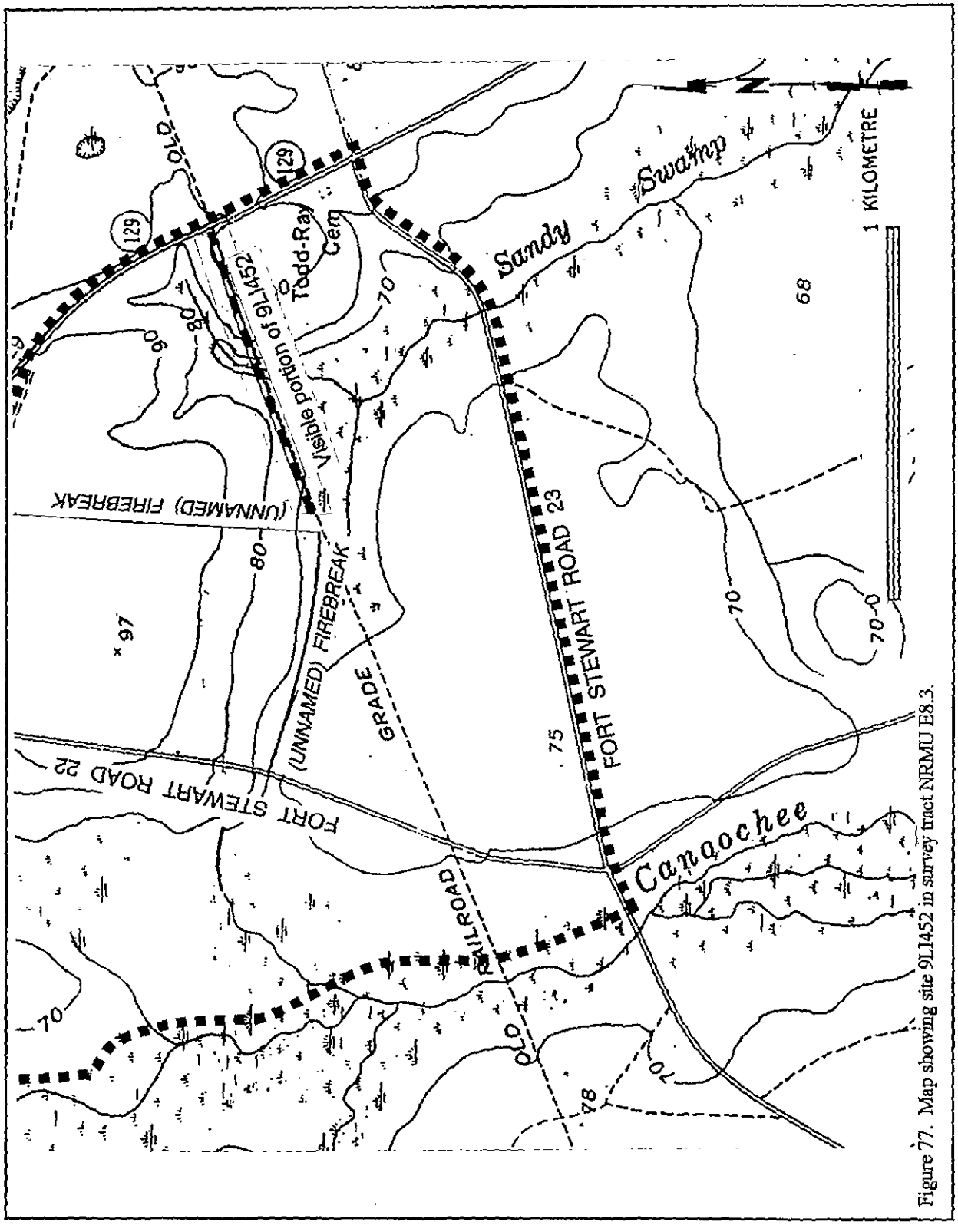

Figure 77. Map showing site 9LI452 in survey tract NRMU E8.3.

Figure 78. Photograph showing condition of site 9LI452 in NRMU E8.3.

Only portions of the bed are visible in NRMU E8.3, and these areas are overgrown with vegetation, which has also affected the integrity of the railbed. No other archaeological materials were recovered from shovel testing around the area, which also suggests a lack of integrity for the rail bed. The lack of data sets and architectural ruins precludes answering significant questions about the construction of the railroad, the location of buildings and structures along the rail line, or the location of maintenance and repair yards.

Based on these analyses, site 9LI452 as it exists in NRMU E8.3 does not possess the integrity necessary to answer significant research questions. However, because the rail bed extends into many other areas which have as yet not been surveyed, the rail bed in its entirety in Liberty County can not be assessed. For this reason, the rail bed is recommended as potentially eligible until the remainder of site 9LI452 in Liberty County can be assessed.

Sites Recorded in Survey Tract NRMU F7.2

Survey tract NRMU F7.2, located in Evans County, was designated as a walkover area, restricting subsurface testing in this area. Ordnance was found in this area and was flagged as instructed by the consulting archaeologists. As discussed in **Research Strategies and Methods**, this tract was surface collected on transects spaced 30 m apart. Eight surface sites were recorded, including five historic sites, a multicomponent site, an isolated historic find, and an isolated prehistoric occurrence (Figure 79).

9EV116

Site 9EV116 is located directly east of and next to Fort Stewart Road T11 and 480 m south of the intersection of Fort Stewart Roads 11 and T11. 9EV116 is located in the northeastern portion of the survey tract. The site is located on either side of Fort Stewart Road T11 in an area that is used as a turn around for military vehicles (Figure 80). This area is covered in grasses, but has large tire ruts with military trash. The site is located on a low ridge that gently slopes into the drainage at Canoochee Creek. Central UTM coordinates for the site are N3548580 E426495 and the elevation is 30 m

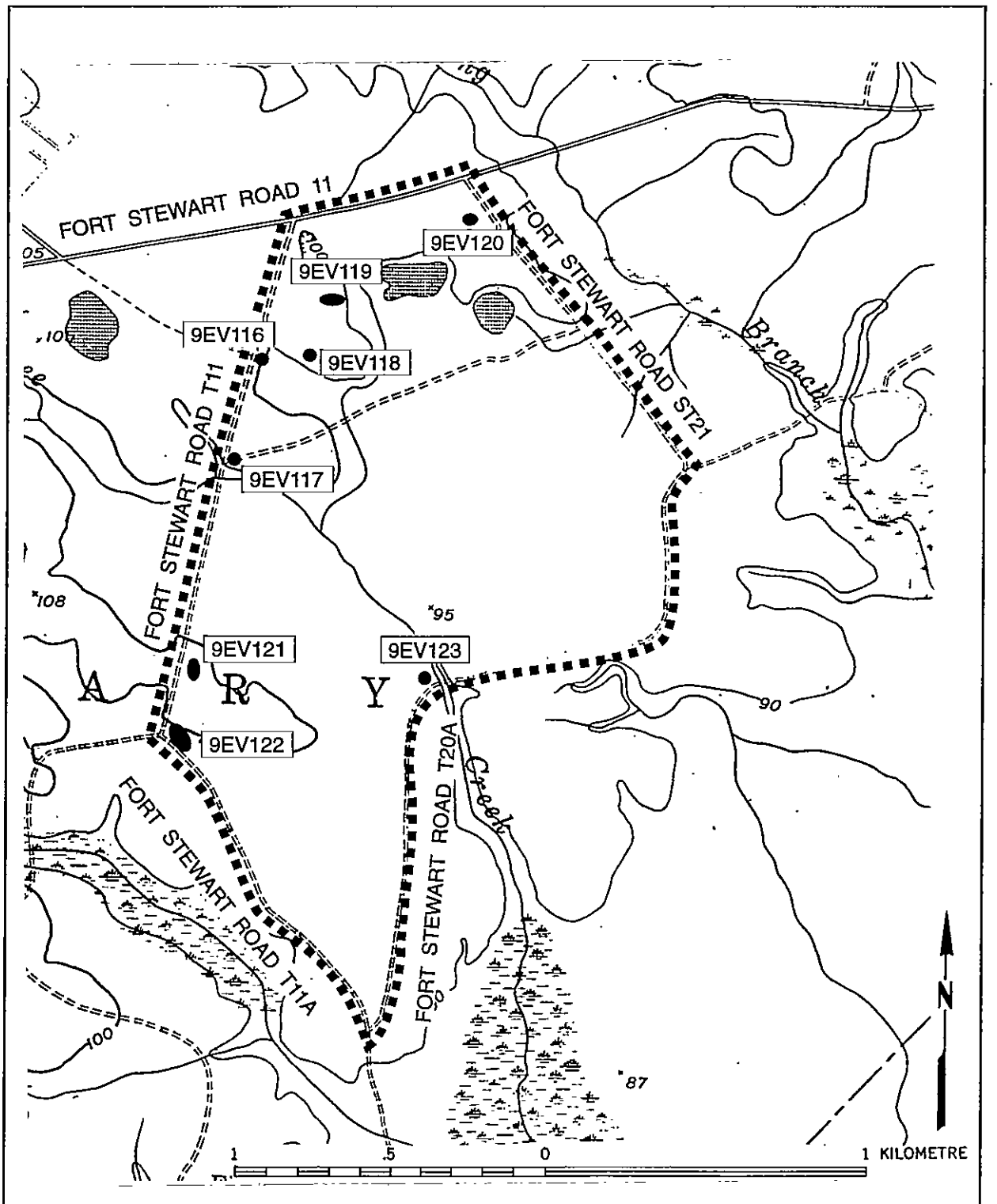

Figure 79. Sites Recorded in survey tract NRMU F7.2.

Table 41.
Artifacts Recovered from 9EV116

Unit	Glass	Stoneware			Whiteware				Pearlware		Other
		Albany	Bristol	glazed	undec	poly hp	blue hp	decal	undec	edged	
East	23	2	1	6	8	2	0	1	1	1	1 yellow ware 4 brick frag.
West	28	0	4	1	12	1	1	0	1	0	1 vehicle tag
Road	3	1	1	2	3	0	0	0	0	0	1 earthenware

AMSL. Site 9EV116 is located on Pelham loamy sand, a poorly drained soil.

The site was first noticed on the west side of the road and two large collection areas were created, one on the east side of the road and one on the west side of the road. Artifacts that were collected from the road itself were designated as found "in the road." The extent of the surface collection of artifacts was determined to be the site boundary. A large area of trees on both sides of the road seemed to define the southern boundary of the site. Underneath one area of trees, a pile of bricks and a pile of modern trash refuse was discovered. A number of artifacts were recovered from the surface collection units and are described in Table 41. The large number of ceramics surface collected from 9EV116 gives a mean ceramic date of 1857 (Table 42). In addition to the common historic artifacts recovered from the site, a round, 5 cm diameter stamped aluminum vehicle registration tag was also collected and is stamped "Registered Motor Vehicle 151132 Georgia Motor 1927 Vehicle Law."

Table 42.
Mean Ceramic Date for 9EV116

Ceramic	fi	xi	fi x xi
Pearlware, undecorated	2	1843	3686
Pearlware, blue edged	1	1805	1805
Whiteware, undecorated	23	1860	42780
Whiteware, poly hp	3	1848	5544
Whiteware, decalcomania	1	1926	1926
Whiteware, blue edged	1	1853	1853
Yellowware, undecorated	1	1853	1853
	32		59447

59447 ÷ 32 = 1857.72

This site is not shown on the 1919 edition of the Claxton USGS map, although it may represent an historic site that has been extensively damaged by the use of military vehicles in the exact area of the site.

The Georgia State Historic Preservation Officer has determined that sites located in areas that may contain unexploded ordnance are not eligible for inclusion on the National Register of Historic Places because the data sets to address eligibility can not be accessed.

9EV117

Similar to site 9EV116, 9EV117 was discovered in Fort Stewart Road T11, at the corner of this road and an unnamed firebreak, and 460 m south of Fort Stewart Roads T11 and 11. The central UTM coordinates are N3548290 E426593 and the elevation is 30 m AMSL. The site is located on a slight ridge that gently slopes towards Canoochee Creek. Site 9EV117 is located on Osier and Bibb soils, which are very poorly drained.

Two general large collection units were created to cover both sides of Fort Stewart Road T11, and were designated the East Collection Unit and the West Collection Unit (Figure 80). Fort Stewart Road T11 serves as the western boundary for survey tract NRMU F7.2. Artifacts that were recovered from the surface of Fort Stewart Road T11 were designated as such and analyzed separately. Vegetation on the sides of the road includes planted pines and mixed hardwoods.

Only an undecorated whiteware was found in the East Collection Unit, while an opaque blue glass fragment, a primary chert flake, and a tertiary chert flake were recovered from the West Collection Unit. The road

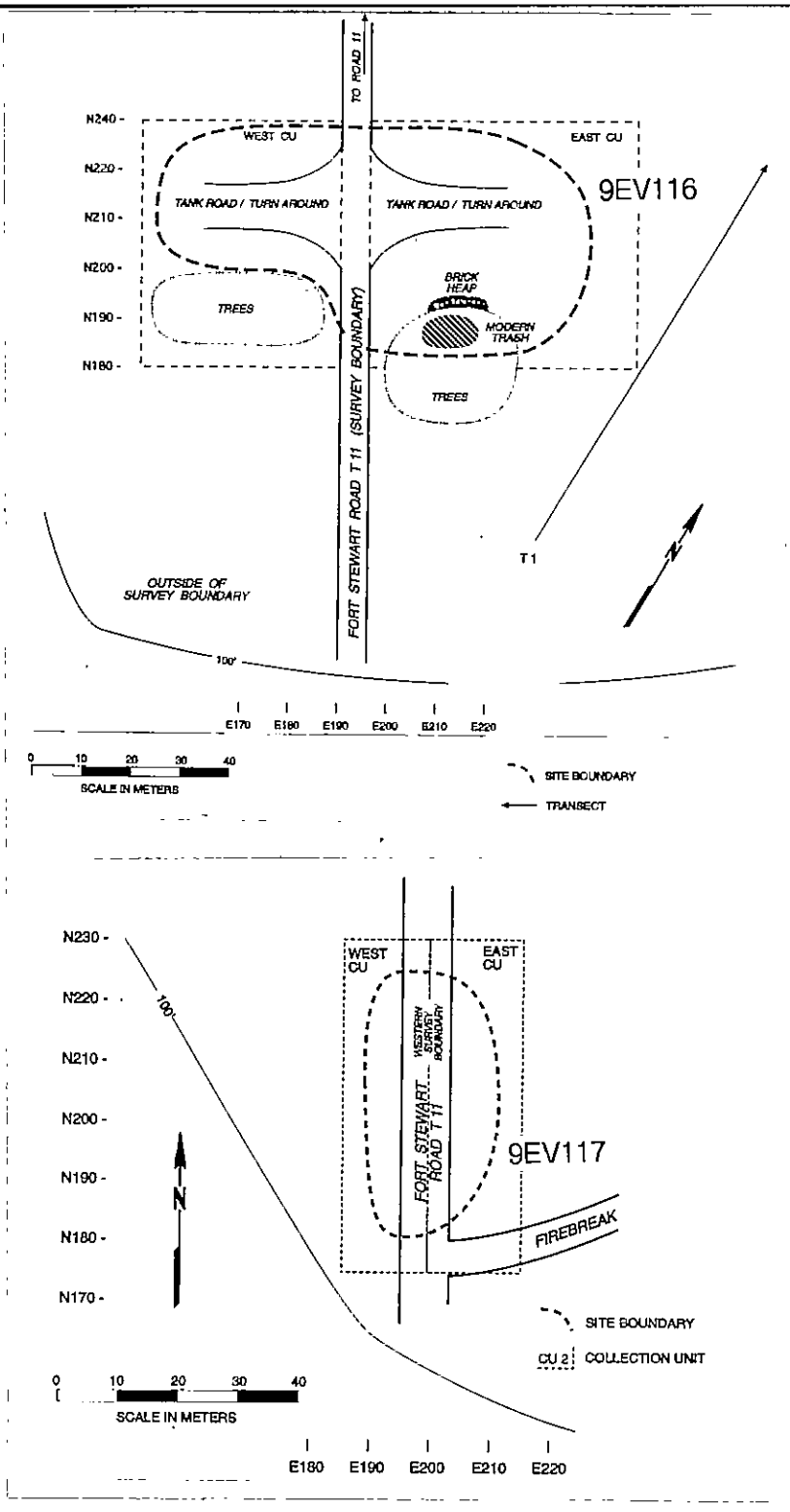

Figure 80. Maps of sites 9EV116 and 9EV117.

surface contained the greatest amount of artifacts, including 2 undecorated whiteware fragments, 1 whiteware fragment with a portion of maker's mark that read "_ IRONSTONE CHINA," three blue edged whiteware fragments and a glass manganese fragment. This site is very disturbed and may represent a historic structure shown on the 1919 edition Claxton USGS map, although no architectural remains or ruins were observed during surface collections.

The Georgia State Historic Preservation Officer has determined that sites identified in areas with unexploded ordnance are not eligible for inclusion on the National Register of Historic Places.

9EV118

Site 9EV118, an isolated historic find, is located 460 m southeast of the intersection of Fort Stewart Roads 11 and T11. The find's central UTM coordinates are N3548650 E426650 and the elevation is 30 m AMSL.

The find originated on Surface Collection 12 on Transect 8, and was tested using a 10 m grids laid out on north-south from the positive surface collection on Transect 8 (Figure 81). A total of 24 units were surface collected, but other than the undecorated whiteware fragment recovered from the positive surface collection, no other artifacts were encountered.

The find is located on a relatively flat area and includes planted pines and mixed hardwoods. Site 9EV118 is located on Pelham loamy sand, a poorly drained soil. This find does not possess the data sets necessary for inclusion on the National Register and is recommended as not eligible for inclusion, based only on the surface collections, not subsurface collections.

9EV119

Site 9EV119 is located 350 m south of Fort Stewart Road 11 and 300 m southwest of the intersection of Fort Stewart Roads 11 and T11. The site is located in the northwestern portion of walkover survey tract NRMU F7.2. No subsurface testing was conducted at this site, and soil conditions can not be addressed, although the site is located on Pelham loamy sand, a poorly drained soil. Central UTM coordinates for the site are N3548860 E426760 and the elevation is 30 m AMSL.

Large mature oak tress, planted pines, and wild rose bushes cover the site, which is located on a relatively flat ground that slopes slightly to Canoochee Creek approximately 760 m south of the site. The site has been subjected to some recent damage from military vehicles, evidenced by vehicle ruts near the site, which measure approximately 2 meters in width.

The site was first located at Surface Collection 21 on Transect 10 (Figure 82). A total of 97 collection units were surface collected, producing 16 positive surface collection units that contained a total of 75 artifacts, described in Table 43. Based on the collection of these artifacts, the site measures 4,900 m². The mean ceramic date is 1860, based on the presence of 10

Table 43.
Artifacts Recovered from 9EV119

		Stoneware	Whiteware					
Unit	Glass	Bristol	undec	molded	edged	Porcelain	Earthenware	Nails
CU 4				1				
CU 14	2							
CU 36	1	1						
CU 37			1					
CU 38	1							
CU 39	8		1		1			
CU 40	1							
CU 41			1					
CU 48	2							
CU 49	7		3			1		1
CU 57	17		4					
CU 58	6	1					1	
CU 59	3			1				
CU 60	1							
CU 67	2							
CU 74	2		1					

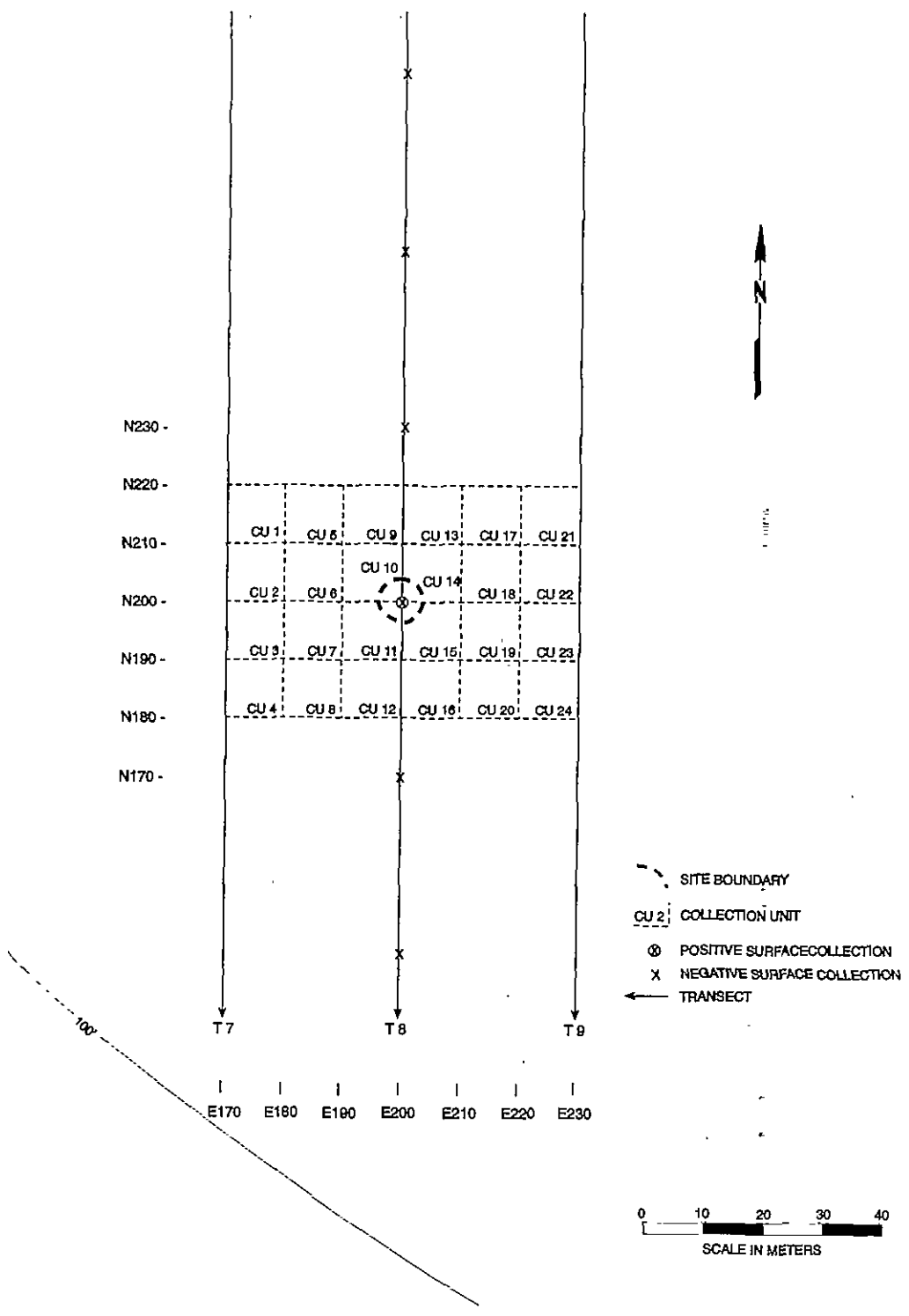

Figure 81. Map of site 9EV118.

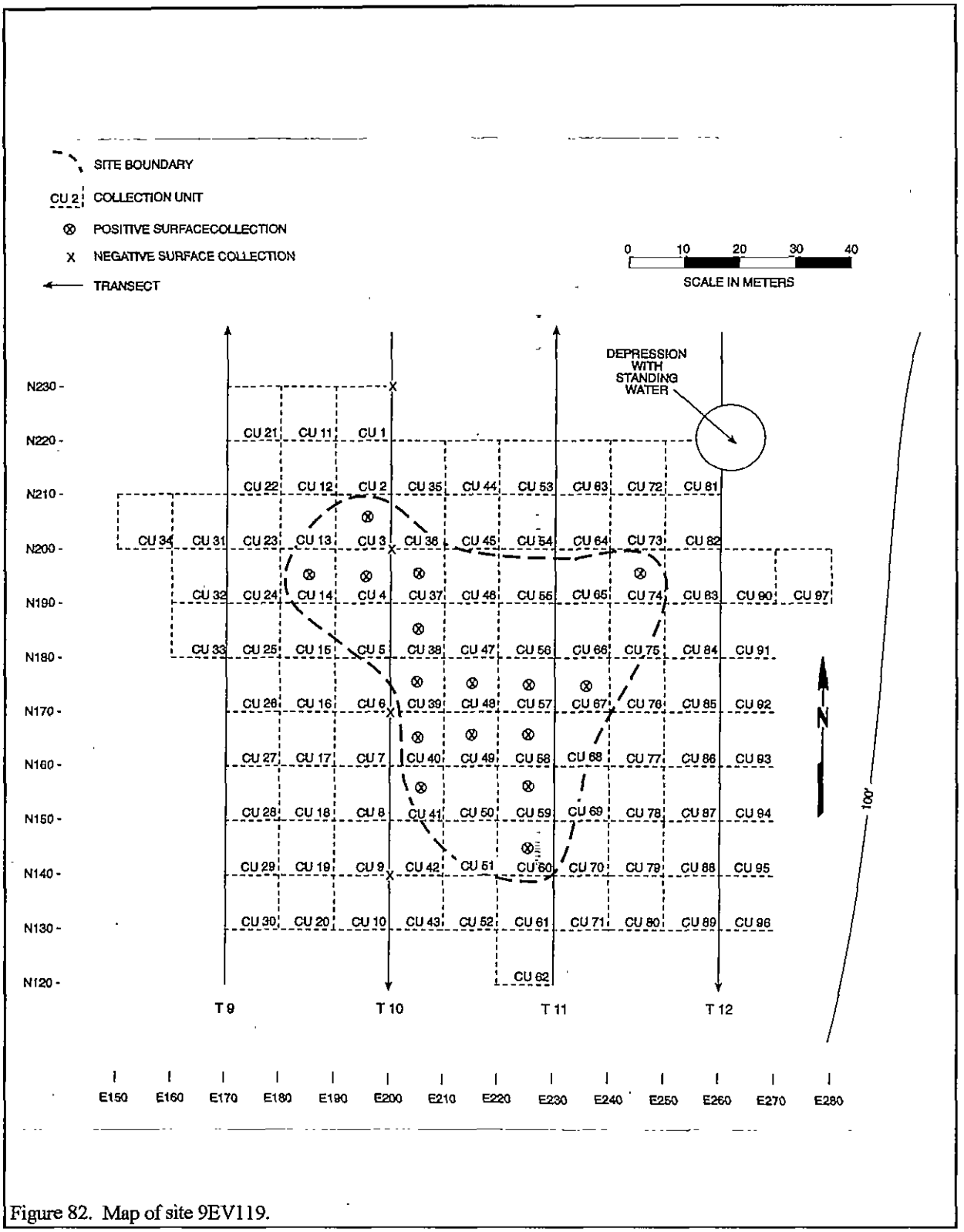

Figure 82. Map of site 9EV119.

fragments of undecorated whiteware (which has a mean date of 1860). The site may represent a house site, although it is not shown on early topographic maps.

The Georgia State Historic Preservation Officer has determined that sites located in areas that contain unexploded ordnance are not eligible for inclusion on the National Register of Historic Places.

9EV120

Site 9EV120 is located 80 m south of the intersection of Fort Stewart Roads 11 and 21 in the northeastern portion of walkover survey tract NRMU F7.2. No subsurface testing was conducted at this site and soil conditions can not be addressed. The site is located on Pelham loamy sand, a poorly drained soil. The central UTM coordinates N3549120 E427160 and the elevation is 30 m AMSL.

The site is located on a relatively flat ground that slopes slightly to the south . The edges of the find have been used by military vehicles, evidenced by recent tire ruts that measure approximately 2 meters in width, which have also damaged the find's integrity. The site was first located on Surface Collection 3 on Transect 30. Thirty 10 m surface collection units produced four positive surface collections and contained a total of 7 artifacts. Based on the collection of these artifacts, the site encompasses 800 m² (Figure 83). Artifacts recovered from 9EV120 surface collections include a green glass fragment, an aqua glass fragment, a manganese glass fragment, a brick fragment, and 3 undecorated whiteware fragments. The site may represent a domestic artifact scatter that has been damaged during military use of the area, although no architectural ruins or remains were observed during surface collections.

The Georgia State Historic Preservation Officer has determined that sites located in areas that contain unexploded ordnance are not eligible for inclusion on the National Register of Historic Places.

9EV121

Site 9EV121 is located adjacent to Fort Stewart Road, and 1.4 km southwest of the intersection of Fort Stewart Roads 11 and T11. No subsurface testing was conducted at this site. Although soil conditions can not be addressed, the site is known to be situated on Leefield loamy sand a somewhat poorly drained soil. Central UTM coordinates for the site are N3547580 E426370 and the elevation is 30 m AMSL.

Large mature oak trees, mixed hardwoods, and planted pines cover the site which is located on a relatively flat ground that slopes with a slight slope 710 m south of Canoochee Creek. The site has been damaged by military vehicles, most likely damaging the site's integrity. The site was first located near Transect 72, based on artifacts found in Collection Units 1 and 2 near a brick scatter. Forty-two 10 m surface collection units were collected, producing 11 positive collection units that contained a total of 14 artifacts, listed in Table 44. Based on the collection of these artifacts, the site encompasses 2800 m² (Figure 84), and stretches across Fort Stewart Road T11. The site is shown on the 1919 Claxton USGS map may represent a historic house site.

The Georgia State Historic Preservation Officer has determined that sites located in areas that contain unexploded ordnance are not eligible for inclusion on the National Register of Historic Places.

Table 44.
Artifacts Recovered from 9EV121

Provenience	Description
CU1	1 Herty cup fragment
CU2	1 alkaline exterior stoneware
CU3	1 window glass
CU6	1 undecorated whiteware
CU11	1 undecorated whiteware, 1 clear glass, 1 window glass
CU25	1 Albany interior stoneware
CU27	1 undecorated whiteware
CU29	1 milk glass
CU32	1 blue transfer print whiteware, 1 light green glass
CU33	1 clear glass
CU41	1 clear glass

9EV122

Isolated occurrence 9EV122, a small scatter of historic artifacts, is located directly north of the intersection of Fort Stewart Roads T11 and T11A. No subsurface testing was conducted at this find, but it is situated on Pelham loamy sand, a poorly drained soil. Central UTM coordinates for the find are N3547360 E426310 and the elevation is 30 m AMSL.

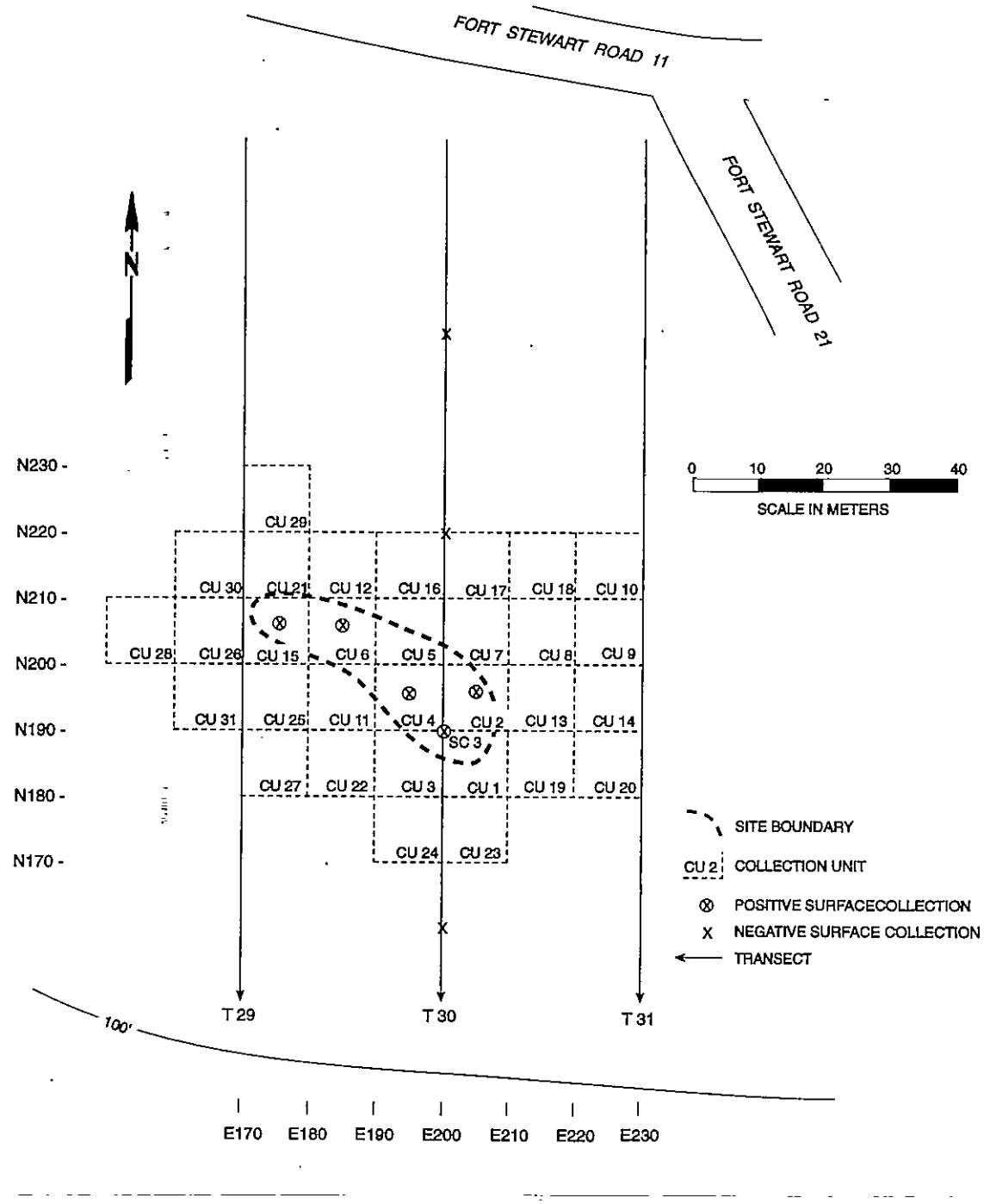

Figure 83. Map of site 9EV120.

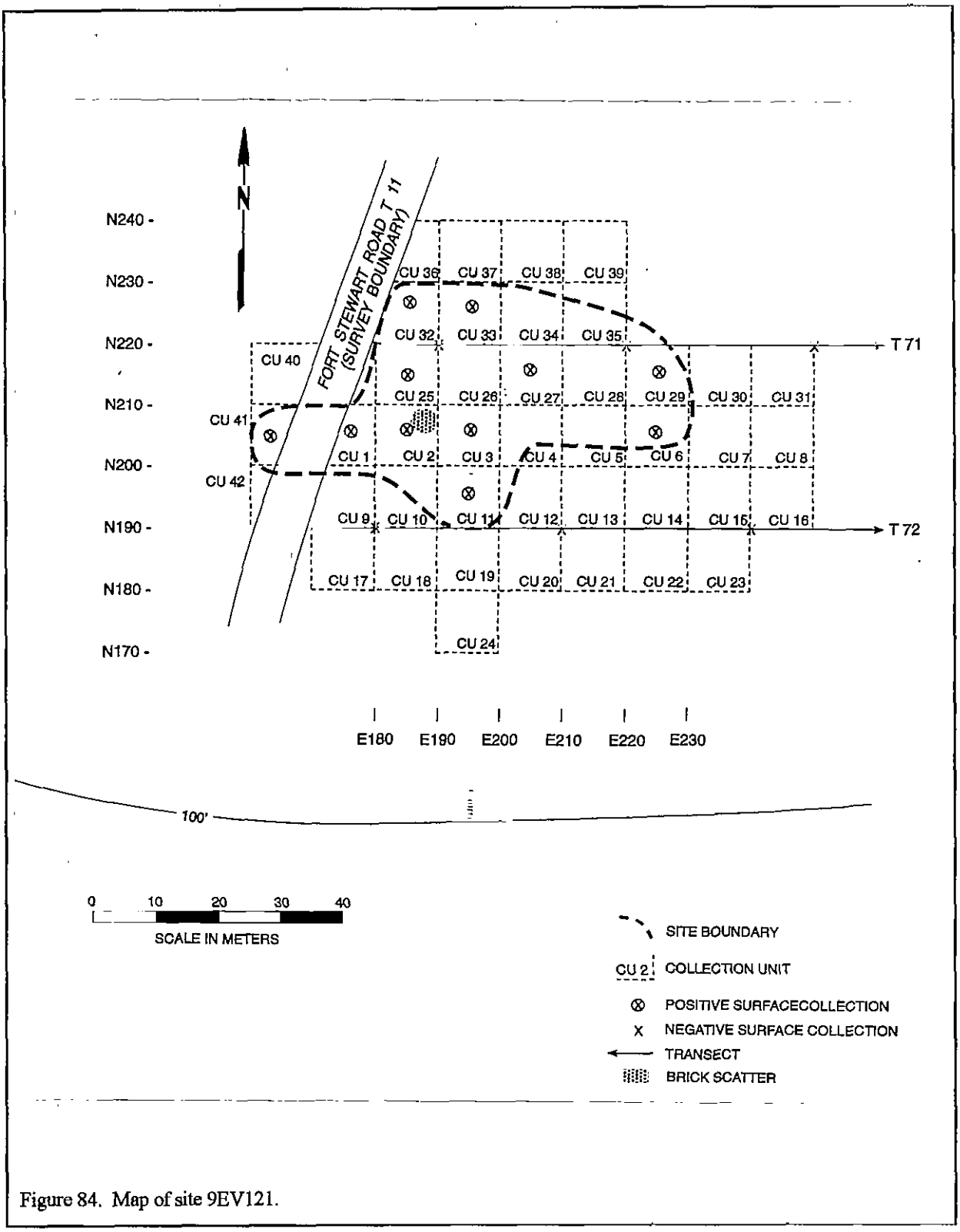

Figure 84. Map of site 9EV121.

Site 9EV122 is located entirely in Fort Stewart Road T11 as a scatter of four artifacts, including 2 undecorated whiteware fragments and two light green glass fragments. Surface collections performed at 30 m intervals for transects were negative (Figure 85), although admittedly the ground surface visibility in that area is less than 25% visibility.

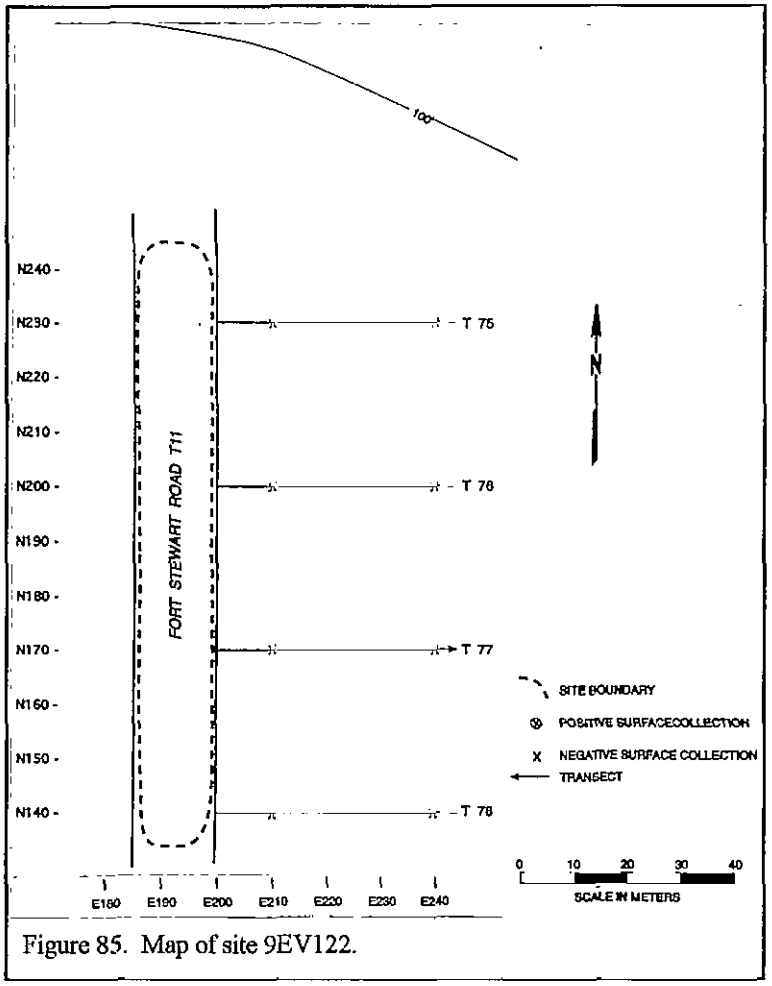

Figure 85. Map of site 9EV122.

The Georgia State Historic Preservation Officer has determined that sites located in areas that contain unexploded ordnance are not eligible for inclusion on the National Register of Historic Places.

9EV123

Site 9EV123, an isolated prehistoric occurrence, is located adjacent to the point where Canoochee Creek and Fort Stewart Road T20A intersect. The site's central UTM coordinates are N3547570 E427060 and the elevation is 27 m AMSL.

One artifact, a nutting stone, was collected from the end point of Transect 75 in the creek bed of Canoochee Creek (Figure 86). Collection units were examined on either side of Transect 75 at this point, but no other artifacts were located. The artifact was most likely deposited by Canoochee Creek. The vegetation in the area consists of mixed hardwoods, pines, and cypress trees.

Based on the surface collection, this find does not posses the data sets necessary for inclusion on the National Register and is recommended as not eligible for inclusion. Furthermore, the Georgia State Historic Preservation Officer has determined that sites located in areas that contain unexploded ordnance are not eligible for inclusion on the National Register of Historic Places.

Sites Recorded in Survey Tract NRMU F17.3

A total of five sites were recorded in NRMU F17.3, including two historic sites, a historic cemetery, and two isolated historic occurrences (Figures 87). One of the historic sites, the Willie Community, is a previously recorded site.

9LI312

The historic Willie community, site 9LI312, was first recorded in July 1994 by Thomas J. Pluckhahn of Southern Research. Only a surface survey of the area was conducted. Although no artifacts were collected, the site form notes that whiteware, glass, brick, and a possible well were observed. The UTM coordinates were recorded as N3541570 E436750, with an elevation of 27 m AMSL.

The dimensions of the site were unknown at the time of Pluckhahn's survey and the area was noted to have been cultivated, graded and endangered by military

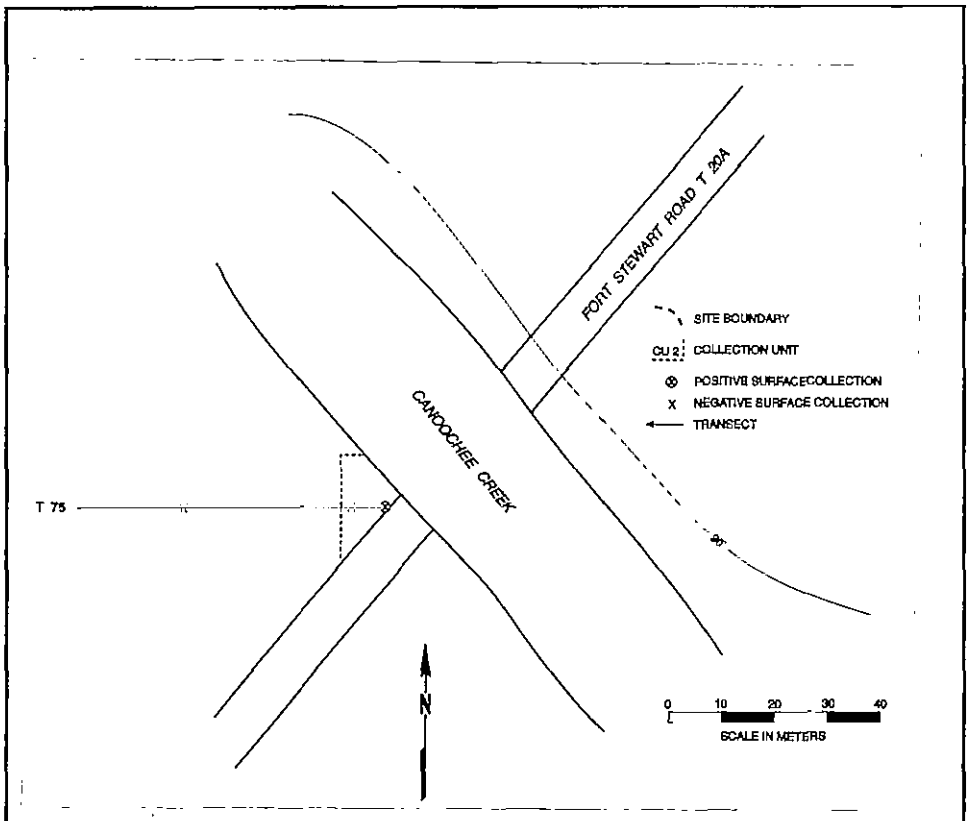

Figure 86. Map of site 9EV123.

activities. The site was recorded as having "unknown" National Register standing.

Based on this survey, site 9LI312 is located between Georgia State Highway 119 and Fort Stewart Roads 17 and 22. The site is located on a low ridge and vegetation consists of mixed hardwoods, pines, and a scrub oak understory. Shovel testing determined the relatively large site boundaries which stretch across 14 transects, and encompass 123,000 m² (Figure 88). At each concentration that met scope definitions for a site (5 plus artifacts in a 20 m diameter), a test unit was dug. Each artifact concentration was designated as a locus and given successive numbers in the field. Locus 1, an isolated locus, refers to ST 2 on Transect 8B. Locus 2, another isolated locus, refers to positive shovel tests that originated on ST2 on Transect 10B. Locus 3 represents positive shovel tests that originated at Shovel Test 3 on Transect 14B, and includes a feature and Test Unit 3B. Locus 4 represents positive shovel tests that originated at Shovel Test 6, Transect 15B and included a well and Test Unit 4B. Locus 5 represents an isolated positive Shovel Test 5 on Transect 16. Locus 6 refers to positive shovel tests that began with Shovel Test 3 on Transect 17B and included Test Unit 6B. Locus 7 refers to positive shovel tests that began with Shovel Test 15 on Transect 20B and included Test Unit 7B.

These artifact concentrations may represent what were once separate structures within the historic community, although this is difficult to determine from this survey. The "loci" were recorded as one site because they are part of the Willie community. Some of the concentrations contained brick piles, and one contained a well. An old railroad cut, site 9LI452, also runs through the site. Central UTMs coordinates for the site are N3541570 E436750 and the elevation is 30 m AMSL.

Shovel tests were excavated at 10 m intervals in cardinal directions from all positive shovel tests in the area of the Willie site. All shovel tests were excavated to a depth of at least 30 cm, with subsoil generally reached at this depth.

The first concentration, Locus 1 located on Transect 8B (N40 E160) consisted of only two manganese glass fragments. Additional shovel testing in the area revealed no other artifacts.

At Locus 2, shovel testing revealed a concentration of five artifacts, including two undecorated whiteware fragments, a clear glass fragment, a wire cut nail, and an UID nail fragment.

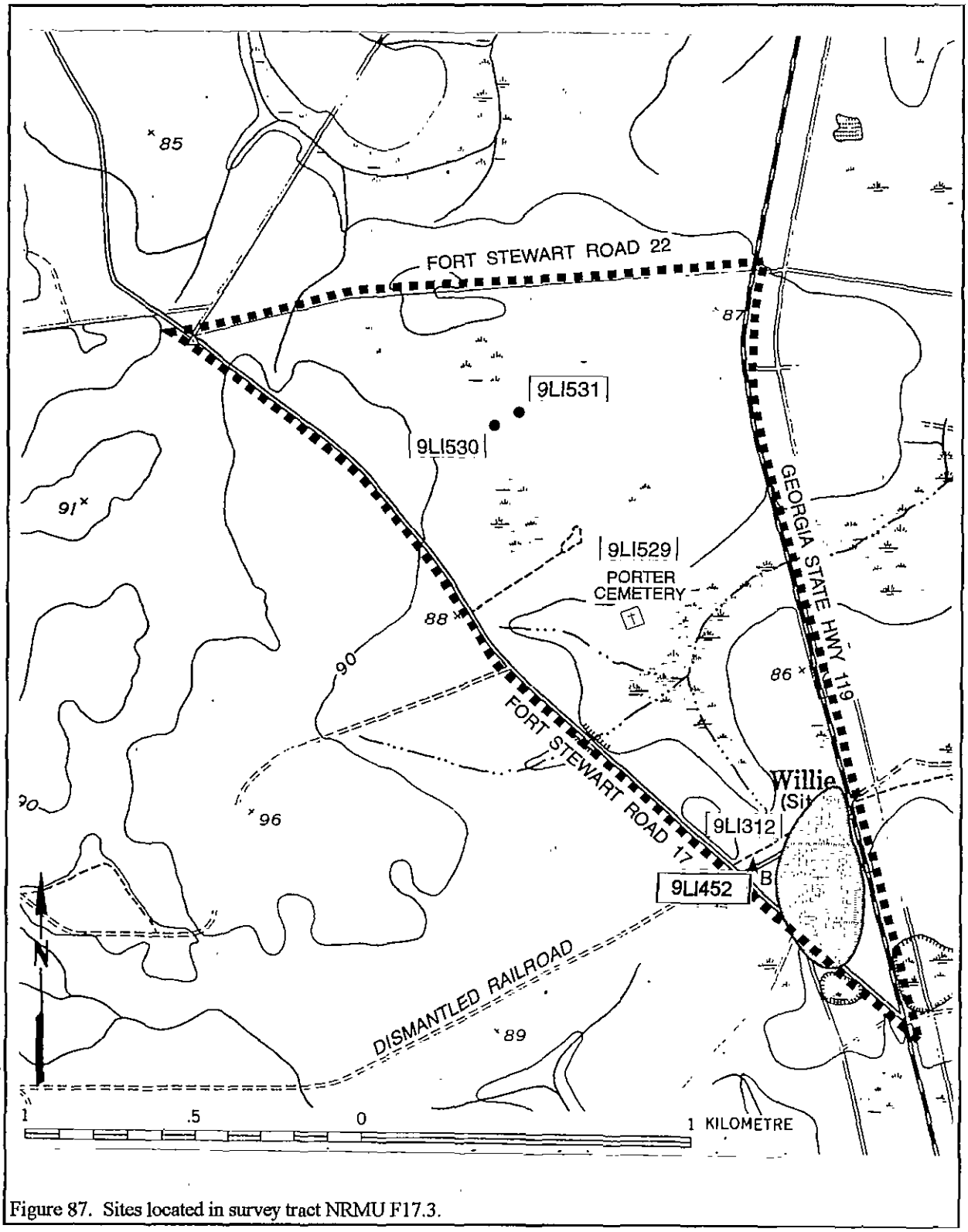

Figure 87. Sites located in survey tract NRMU F17.3.

Table 45.
Artifacts Recovered from Locus 4, 9LI312

Provenience	Glass	Whiteware Bristol	undec	decal	Porcelain	Earthenware
N230 E190	1		1	1		
N240 E190	8		2			
N250 E180	14	1	1		1	
N260 E180	10		1			
N260 E190	2					
N260 E200	2		1			
N270 E180	4					7
N270 E190	1					

The next concentration of artifacts at Locus 3 occurred off of Transect 14B, near an unnamed road. At this spot, a light green glass Lime Cola bottle, produced between 1920s and 1940s in Savannah, Georgia (Jeter 1987:56) was found on the surface. At Shovel Test 3 on Transect 14B (N220 E110), 11 clear glass fragments and a window glass fragment were recovered. No other artifacts were recovered from shovel tests at this concentration, although three brick scatters and a large basement (Feature 1) were recorded at the site. The basement feature measures 12.2 m by 6.2 m and contains a brick scatter within the basement, in addition to a clear glass fragment and two leather fragments recovered from the feature. Test Unit 3B was dug to a depth of 40 cm and consisted of 15 cm of dark grayish brown (10YR4/2) loamy sand, overlying 20 cm of very dark grayish brown (10YR3/2) loamy sand and ten cm of yellow (10YR7/6) sand. In the first 10 cm of the unit, three clear glass fragments and three window glass fragments were excavated. In the 10-20 cm level, three clear glass pieces, three window glass fragments, and two wire cut nails, size 6d and 8d, were recovered. The entire Willie site is located on Leefield loamy sand, a somewhat poorly drained soil, and Fuquay loamy sand, a well drained soil.

Locus 4, located northeast of Locus 3, originated on Transect 15B. A random surface collection in the area yielded an undecorated whiteware fragment, a clear glass preserve jar fragment, a milk glass fragment, and two aqua glass preserve jar fragments. A total of 35 shovel tests in a cruciform pattern, originating at Shovel Test 6 (N250 E180), produced eight positive shovel tests which yielded 58 artifacts, described in Table 45. This locus also contained three brick scatters and a well. Test Unit 4B was dug to a depth of 40 cm and contained artifacts in the first 10 cm of fill, including a clear glass fragment and a window glass fragment. The first 15 cm of the profile consisted of a very dark grayish brown (10YR3/2) loamy sand, overlying 5 cm of brown (10YR4/3) loamy sand. A yellowish brown (10YR5/6) sand occurred from 30-40 cm below the surface, overlying five cm of yellow (10YR7/8) sand. These soils are more similar to Leefield soils than Fuquay soils.

At Locus 5 at Shovel Test 5 on Transect 16B (N280E120), four artifacts were recovered from nine shovel tests, including a decalcomania whiteware fragment, a brown glass fragment, a clear glass fragment, a window glass fragment, and a .22 caliber shell casing. No other artifacts or features were recovered in this area.

Locus 6, which originated on Transect 17B at Shovel Test 3, produced a total of 10 positive shovel tests. A surface collection of the area produced three whiteware fragments, a Bristol exterior stoneware fragment, a black glass fragment, five manganese glass sherds, a clear glass fragment stamped "IRON GLUE," four clear glass fragments and two window glass fragments. Testing at this concentration, designated Locus 6B, produced a large quantity of historic artifacts, described in Table 46. Test Unit 6B also produced a large number of artifacts, also listed in Table 46. The test unit profile consisted of 20 cm of very dark gray (10YR3/1) loamy sand, overlying 30 additional cm of light yellowish brown (10YR6/4) sand. This area is a flat plain with mature oaks and a scrub oak understory.

Testing at Locus 7, located on Transect 20B, Shovel Test 15 (N400 E340), was limited in this area due to a large borrow pit to the west of the site. A total of 15 shovel tests produced three positive shovel units from which were produced three burnt refined earthenwares, two window glass fragments, a clear glass fragment, and two wire cut nails. A surface collection of the area produced an undecorated whiteware fragment. Test Unit 7B, placed at N395 E340, was excavated to a depth of 50 cm and produced artifacts from the first 30 cm of fill. These artifacts are described in Table 47. A large brick scatter was recorded north of N420 E340, just east of the borrow pit, and another was recorded just west of N400 E340.

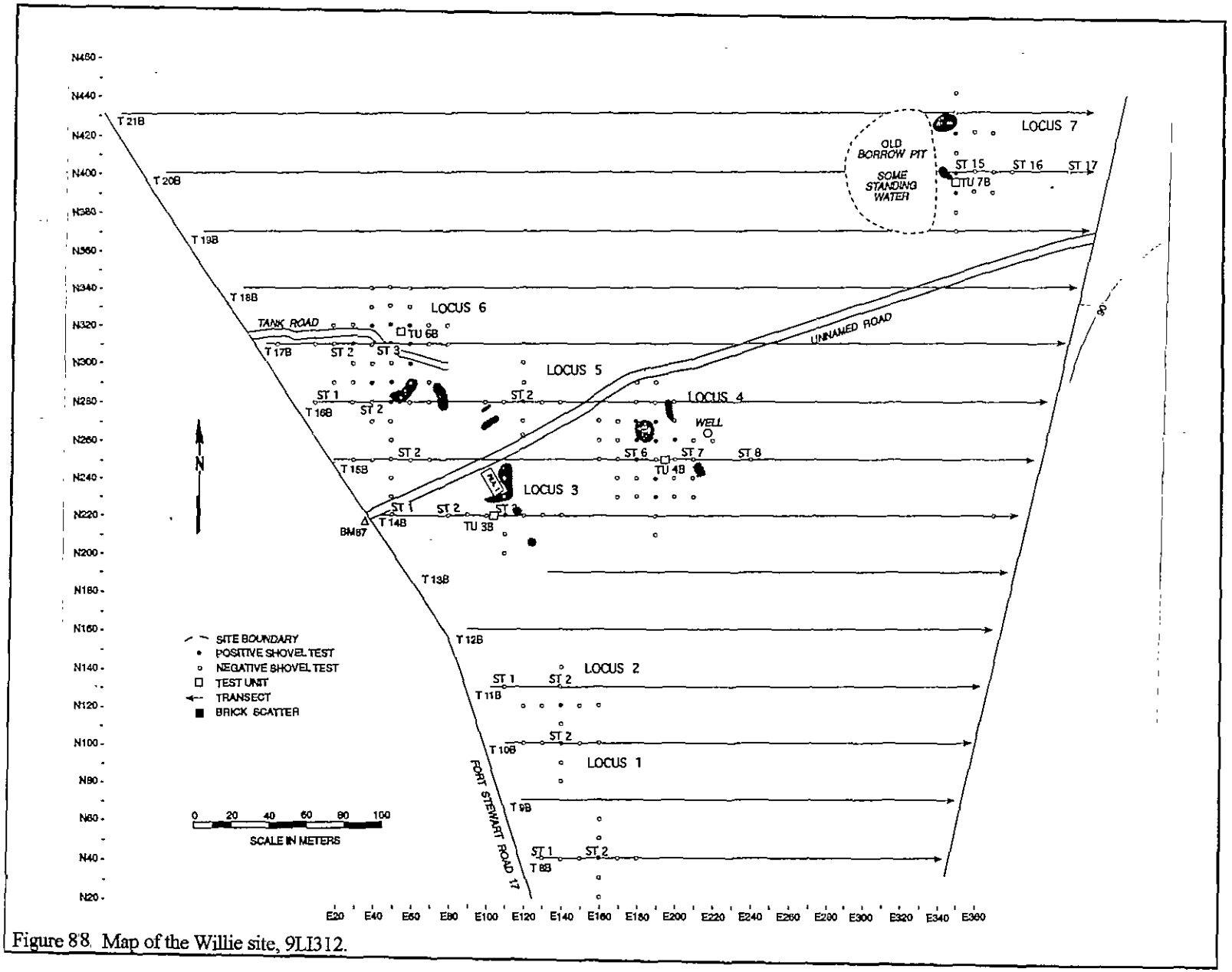

Figure 88. Map of the Willie site, 9LI312.

Table 46.
Artifacts Recovered from Locus 6B, 9LI312

Prov.	Glass	Whiteware Bristol	undec	annular	Porcelain	Nails	Other
N280 E50	3					1	
N290 E40	7	2				1	1 UID iron
N290 E50	3		2				
N290 E60						2	
N310 E30	7						1 earthen.
N310 E50	2						1 UID iron
N310 E60	2	1				1	
N320 E40	2					1	
N320 E50	2	1	3		1		
N320 E60			1			1	1 indus sw
TU 6B 0-10	19		2			11	1 can key 1 brass cap
TU 6B 10-20	22		3	1	1	6	2 crown caps 1 kettle frag
TU 6B 20-30	9					3	

The artifact concentrations at 9LI312 represent various structures from the Willie community that are shown on the 1920 edition of the Pembroke USGS map, although architectural remains or ruins were not present at each locus. The community, discussed in the **Prehistoric and Historic Overview** chapter, represents a town that grew up around a railroad depot and grew into a racially mixed community.

The Willie site has the potential to address significant questions regarding issues of race, class, and status in a racially mixed rural Georgia town in the early twentieth century. Archaeological and historical research can help understand the interaction of black and white populations in Willie by examining the landscape of the town, noting the spatial patterning of stores, industrial structures, houses, and farms. Did the black population use the same resources as the white population? Are there notable differences in subsistence choices between these two groups? Was education available to both black and white children? Did Willie inhabitants worship in the same church?

In addition, a number of significant research questions can further our understanding of African-American lifeways in the early twentieth century. By comparing assemblages from small farmsteads to housing villages provided by industries, we can examine the economic and social differences between these two groups. Did small farm owners have greater access to goods than villagers? Did villagers receive goods that were inaccessible to the small farmers? Did the quality of life between these two groups differ?

The artifact concentrations (loci) demonstrate the integrity of 9LI312. The range of historic artifacts indicates that the site has the data sets necessary to answer these questions. Willie (9LI312) is recommended as potentially eligible (indeterminate) first because the portion of the town in other training areas must be assessed., and second, because the site has the potential to address important research questions outlined above. Historical research will help determine the ownership of at least some of the land tracts in Willie and further testing in other training areas will assess the site's ability to answer significant research questions.

Table 47.
Artifact Recovered from Test Unit 7B

Level	Description
0-10 cm	1 manganese glass, 2 clear glass, 2 melted glass, 2 window glass, 1 butt hinge, 1 iron escutchion, 1 machine cut nail, 16 wire cut nails
10-20 cm	5 clear glass, 3 melted glass, 1 window glass, 2 machine cut nails, 3 wire cut nails
20-30 cm	1 melted glass, 1 window glass, 2 wire cut nails

9LI529

Site 9LI529 is the historic Porter cemetery located in the middle portion of NRMU F17.3, 1.5 km northwest from the intersection of Fort Stewart Road 17

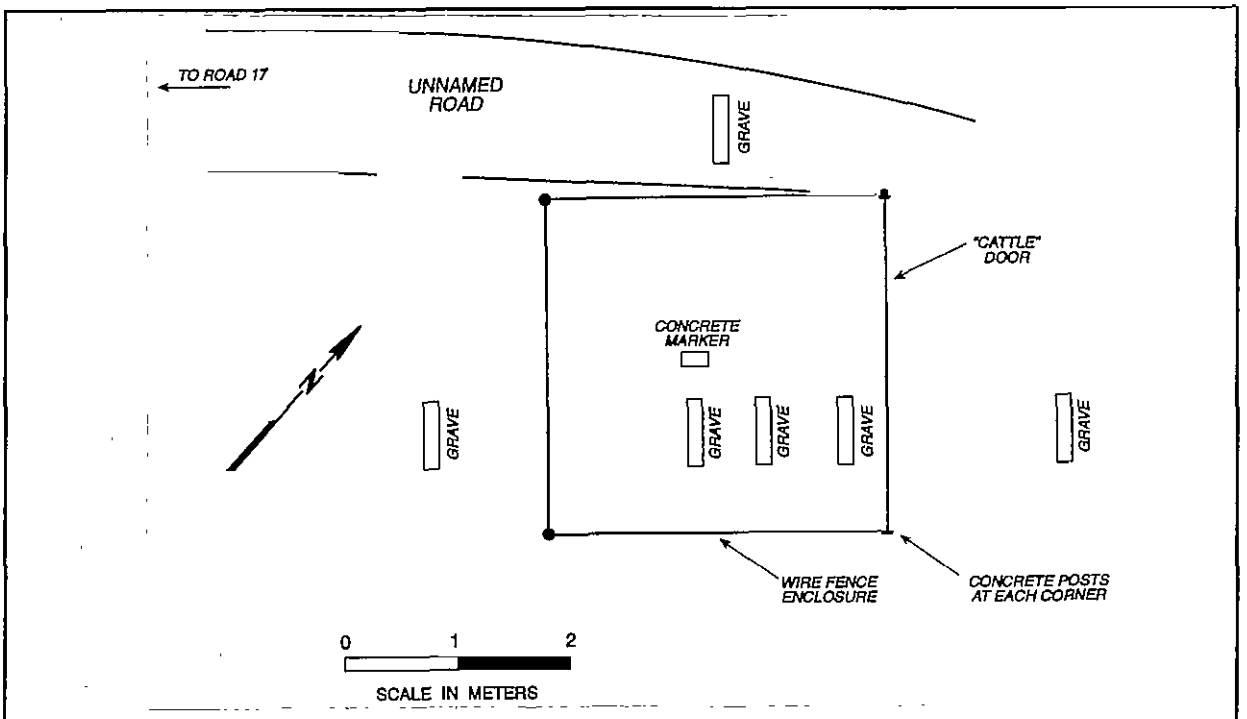

Figure 89. Map of the Porter Cemetery, site 9LI529.

and Georgia State Highway 119. The central UTM coordinates are N3542550 E436220, and the elevation is 24 m AMSL. The cemetery is located on Pelham loamy sand, a poorly drained soil.

The wire fence which encloses the cemetery measures 3 m by 3 m and is accessed by a "cattle" gate (Figures 89 and 90). Chicora personnel used a pentrometer to test the soil compaction inside and outside of the fence enclosure and discovered three graves within the fenced enclosure and three graves outside the fence. The only concrete marker in the enclosed fence was illegible at the time of the survey. However, according to the post consulting archaeologist's files read: Elijah Porter/ Age 60/ Born in 20/ He Was A Good/ Man/ Gone But Not/ Forgotten. The illegibility of the stone now indicates the considerable amount of erosion that it has undergone since it was first recorded. Grave goods a the cemetery included a whiteware pitcher, missing its base, placed in front of the concrete marker. Large tire ruts and disturbed earth near the cemetery indicate that it has likely been damaged by logging trucks that use a road beside the cemetery. Those graves located outside the fence may be in danger of being damaged by activities in this area.

The Porter Cemetery is recommended as potentially eligible because *National Register Bulletin 41* indicates that cemeteries can and should be assessed under criteria D because they yield or may be likely to yield information important in history. Cemeteries evaluated under Criterion D (except for the graves of significant persons) do not need to meet the special requirements of the Criteria Considerations (Townsend et al. 1996:16).

This cemetery can provide important information concerning socioeconomic status, social organization, trade, and business patterns, without excavating any of the associated burials. Two additional reasons contribute to a cemeteries eligibility. First, if the cemetery must be moved at any time and no archaeological investigation takes place, any biocultural or archaeological information will be lost. Second, cemeteries made eligible will ensure that data sets are not damaged or destroyed by cemetery maintenance activities, such as refurbishing fences.

9LI530

Site 9LI530, an isolated historic occurrence, is

located 850 m southeast of the intersection of Fort Stewart Roads 20 and 17. The find's central UTM coordinates are N3542940 E435820 and the elevation is 26 m AMSL. The find is located on Stilson loamy sand, a moderately well drained soil.

The find originated on Transect 55, Shovel Test 9 and was tested using a cruciform pattern in cardinal directions from this point (Figure 90). A total of 14 shovel tests produced one additional positive shovel test (N200 E180). These two shovel tests yielded an unidentified piece of iron and an unidentified nail fragment. No other artifacts were encountered. The find is located on a relatively flat area and includes mature pine with oak and scrub oak understory.

This site does not posses the data sets necessary for inclusion on the National Register and is recommended as not eligible for inclusion.

9LI531

Site 9LI531, an isolated historic occurrence, is located 820 m southwest of the intersection of Georgia State Highway 119 and Fort Stewart Road 22. The site's central UTM coordinates are N3542960 E435920 and the elevation is 26 m AMSL. The site is located on Pelahm loamy sand, a poorly drained soil.

The site originated on Transect 55, Shovel Test 11 and was tested using a cruciform pattern in cardinal directions from this point (Figure 90). Other than the gray salt glazed stoneware fragment and clear glass fragment recovered from Shovel Test 11, no other artifacts were encountered. The site is located on a relatively flat plain with planted pines, oaks, and a scrub oak understory.

This site does not posses the data sets necessary for inclusion on the National Register and is recommended as not eligible for inclusion.

9LI452

Site 9LI452 is a portion of the old railroad bed that also appears in NRMU E8.3 and Long County (as site 9LG149). In NRMU F17.3, the rail bed is in similar condition as in NRMU E8.3. While portions of the bed are slightly visible, it is completely overgrown with vegetation. No ties, sleepers, or construction hardware were recovered during shovel testing of the area.

Figure 90. Photograph of Porter Cemetery.

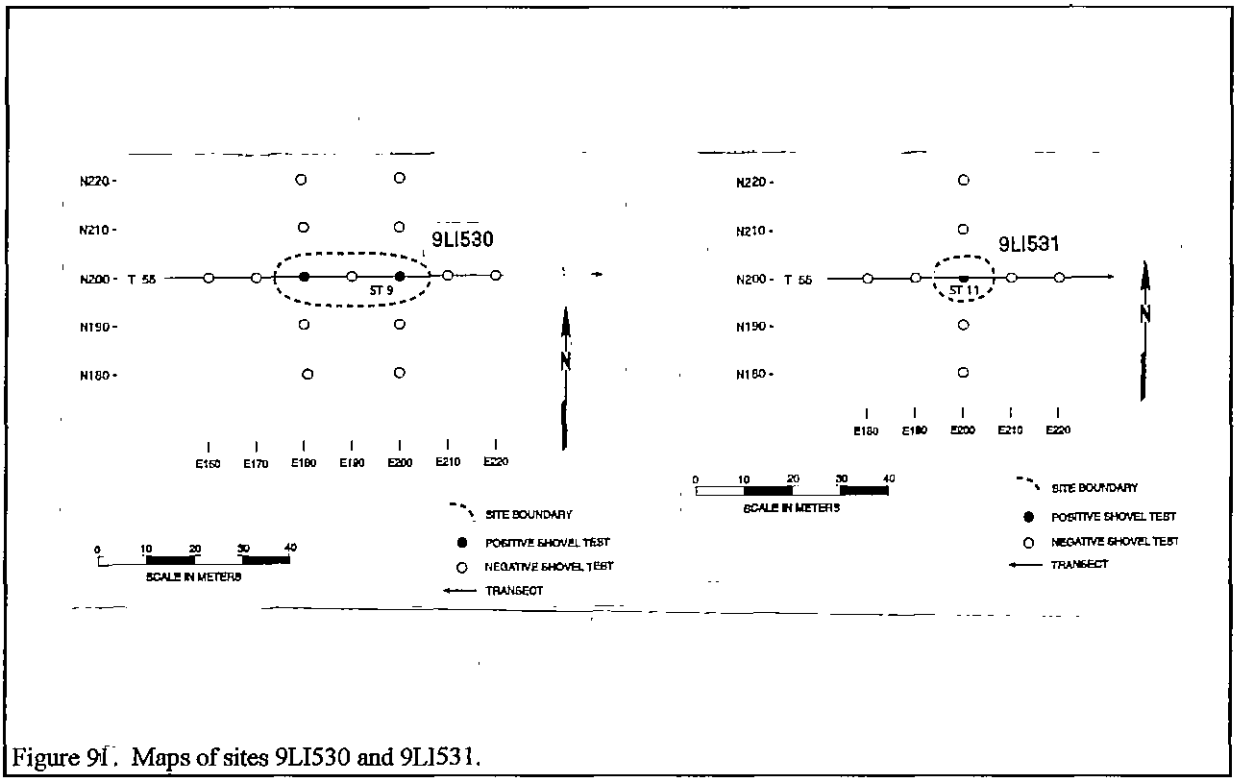

Figure 91. Maps of sites 9LI530 and 9LI531.

The data sets for this portion of 9LI452 (Figure 91), as in NRMU E8.3, consist entirely of the rail bed itself. Site 9LI452 lacks any metal artifacts, construction hardware, or architectural ruins associated with the railroad.

The historic context for 9LI452 is demonstrated in the FSHPP (Campbell et al. 1996:127). This rail bed was part of the Savannah and Southern railroad line (Hinesville and Pembroke quad maps 1918 and 1920) that passed through Willie, Strum Bay, and Letford communities, and was owned by William Tuten (Campbell et al. 1996:135).

A number of significant research questions concerning railroads have been posed by the Georgia State Historic Preservation Division (1995). These include the study of the methods and materials used to construct earthen rail beds, the location and identity of buildings and structures along the rail line ,and the location and function of maintenance and repair yards.

The Georgia State Historic Preservation Division has also noted that rail beds must retain integrity of design, location, materials, and setting in order to meet National Register Criterion C, Criterion A, or Criteria D. Site 9LI452 in NRMU F17.3, as in NRMU E8.3, has not retained the integrity of design, materials, or setting necessary to meet the criterion mentioned. Only portions of the bed are visible in NRMU F17.3, and these areas are overgrown with vegetation, which has also affected the integrity of the railbed. No other archaeological materials were recovered from shovel testing around the area, which also suggests a lack of integrity for the rail bed. The lack of data sets and architectural ruins precludes answering significant questions about the construction of the railroad, the location of buildings and structures along the rail line, or the location of maintenance and repair yards.

Based on these analyses, site 9LI452 as it exists in NRMU F17.3 does not possess the integrity necessary to answer significant research questions. However, because the rail bed extends into many other areas which have as yet not been surveyed, the rail bed in its entirety in Liberty County can not be assessed. For this reason, the rail bed is recommended as potentially eligible until the remainder of site 9LI452 in Liberty County can be assessed.

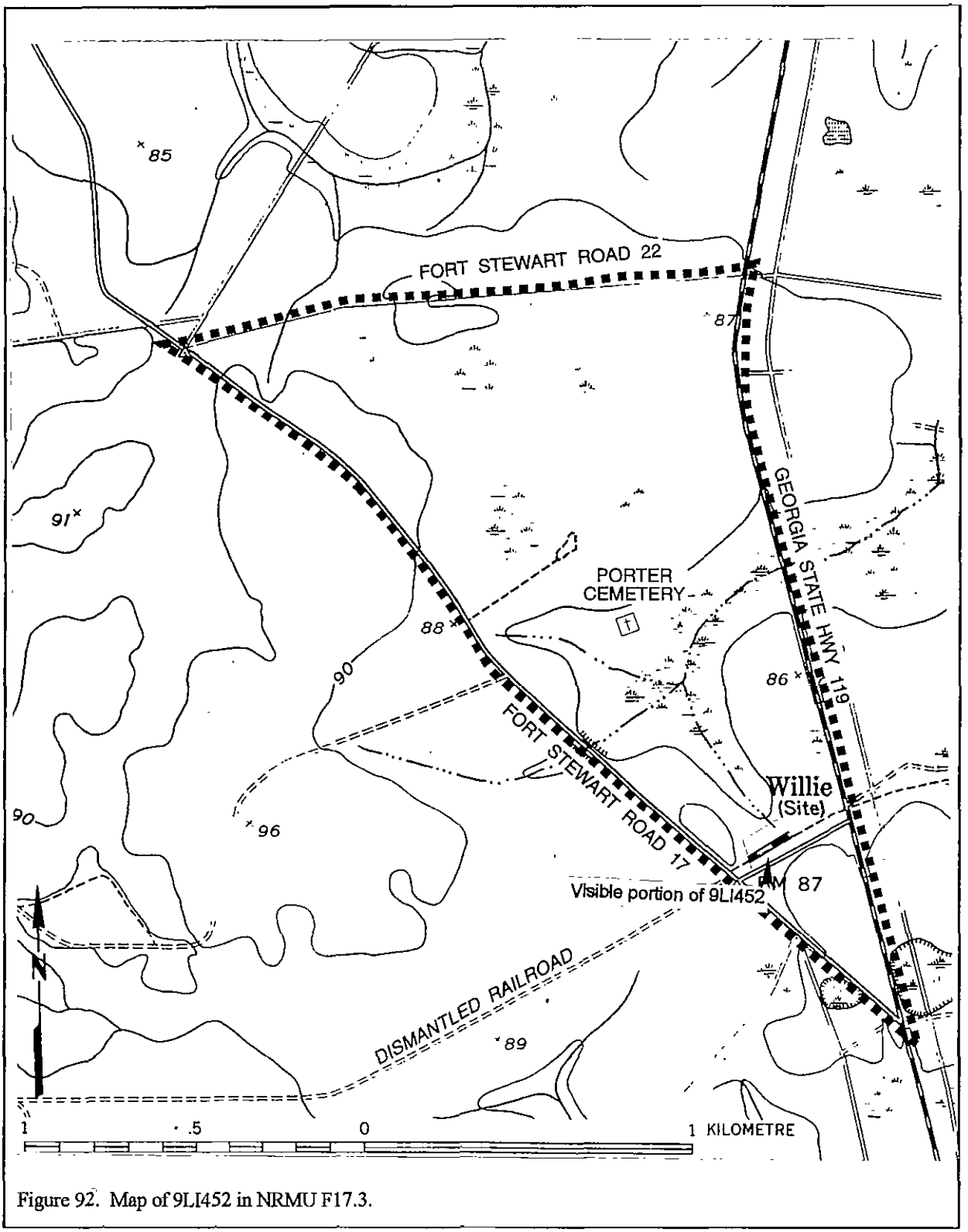

Figure 92. Map of 9LI452 in NRMU F17.3.

CONCLUSIONS

Introduction

As a result of the intensive survey of the 1,066.022 ha in survey tracts NRMU A9.1, A12.1, A12.2, B7.2, B7.3, E6.3, E8.3, F7.2, and F17.3, 27 archaeological sites and 18 Isolated finds were revisited or identified. Of these resources (which are briefly outlined in Table 25), 11 sites are recommended as potentially eligible (indeterminate) for inclusion on the National Register of Historic Places. The remaining 34 sites and isolated occurrences are recommended as not eligible for inclusion on the National Register.

Issues discussed in these conclusions include an overview of the potentially eligible sites, recommendations for further study to determine eligibility, and recommendations for their protection. Also included is an overview of current predictive modeling, which includes an examination of locational data; a discussion of seasonally wet areas in the survey tract, the use of historic maps as an indicator of historic sites on the survey tract, and an overview of what has been learned concerning the cultural phases present in the study area.

Historic Maps for Survey Tracts

Early twentieth century historic USGS quad maps were examined in order to determine which structures shown on the maps were located during surveys. Maps were located for all of the survey tracts, except for portions of A9.1 and A12.2. An early USGS map for this area of the base (predating military ownership) does not exist. Survey tract areas were identified on these maps and structures shown on the maps were compared to sites that have been located during this survey. Site numbers were then applied to the structures on the historic maps that are likely to represent the located sites. Structures that were not located during the survey were also highlighted with arrows. These maps also demonstrate that most, if not all, historic structures are located along historic roads. It is also important to note that historic sites were located in the survey tract that do not have associated structures on the historic maps. The number of structures located varies with each survey tract.

NRMU A9.1

The historic map located for A9.1 only covers a small portion of the survey tract located east of the Evans Heliport. No structures are shown for this area and no sites were located in the area. The historic map[1] for this area also encompasses only a portion of NRMU A12.2, including the area located north of Evans Heliport and half of the southern portion of the survey tract.

NRMU A12.1 and A12.2

In NRMU A12.1 and a portion of A12.2, five sites were matched to historic structures on the Hinesville 1918 USGS quad map (Figure 93). All of the historic structures located in the survey tracts, or near Fort Stewart Road 51, appear to have been located by survey in these two tracts. The structure that may be associated with 9LI517, a multicomponent site, appears to have been located west of the road (now Fort Stewart Road 51), while 9LI517 was located east of the road. Fort Stewart Road 51 was the western survey tract boundary and testing was not done east of the road. If site 9LI517 does represent some remains of this structure, then it is likely that the site extends east and south of the survey tract boundary, and could not be fully assessed by this survey. The site also appears to be stratified and has good integrity. For these reasons, site 9LI517 has been recommended as potentially eligible.

Site 9LI518, a historic site, is also associated with a structure located directly west of Fort Stewart Road 51, while the site was located east of the road. Site

[1]The remainder of the historic maps for the Fort Stewart area were recently given to us by David McKivergan. Time constraints do not permit us to accurately study the maps for portions of NRMU A9.1 and A12.2 and will not be included in this report.

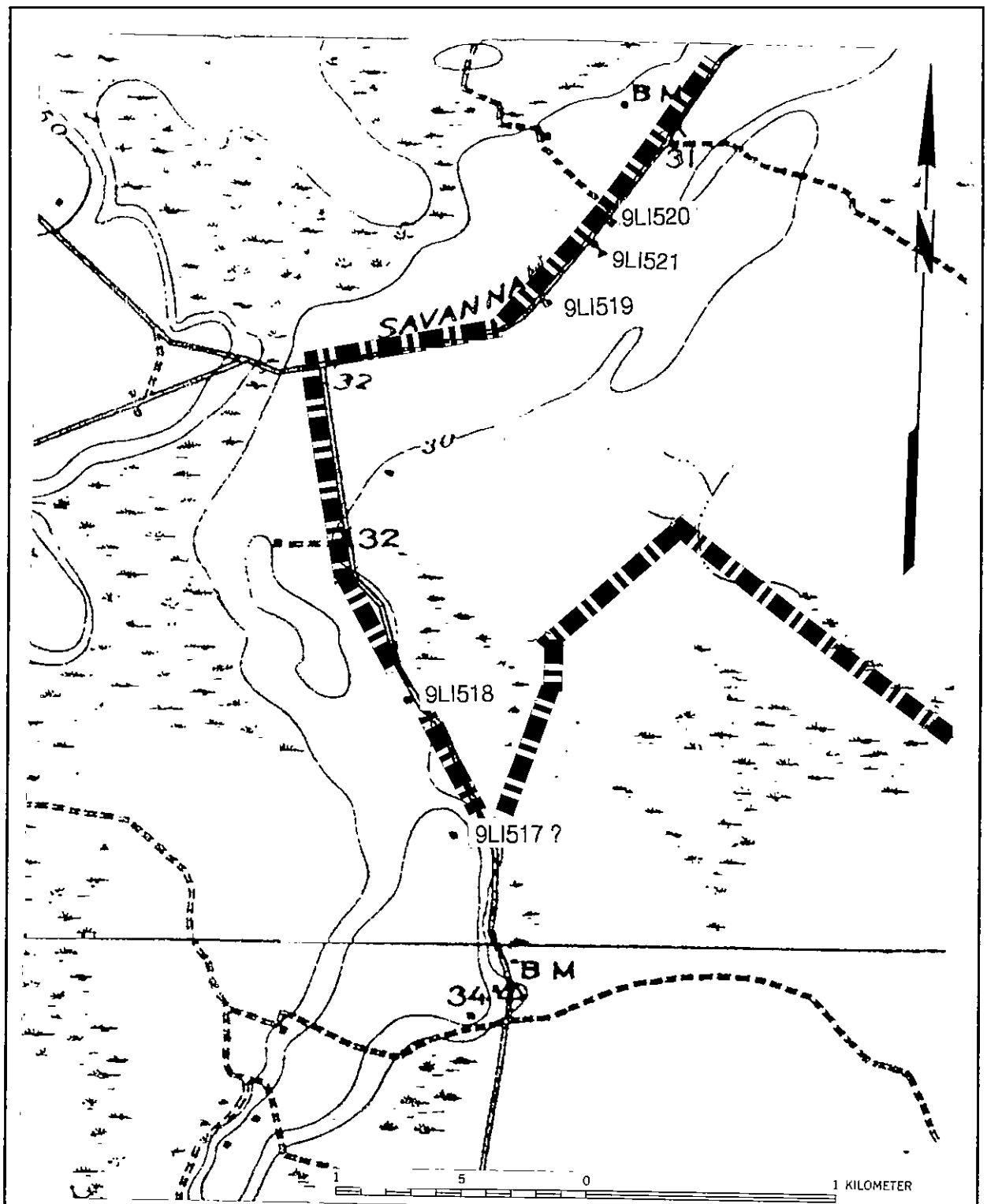

Figure 93. Historic map for survey tracts NRMU A9.1, A12.1, and A12.2 (Hinesville 1918).

9LI518 heavily disturbed and contains a large amount of modern trash. answer This site is recommended as ineligible because it does not appear to have integrity.

Site 9LI519, located south of Georgia State Highway 144, is an isolated historic site associated with a structure on the Hinesville 1918 edition quad map. This site is located in a disturbed area and produced only one historic ceramic. It is recommended as ineligible because it does not posses the data sets necessary to answer research questions. This site may been have completely destroyed during construction and paving of the state highway.

Similarly, site 9LI521, also an Isolated find, appears on the historic map, but produced only a glass fragment and a wire cut nail. Site 9LI521 is shown on the map as a school, which may explain the low density of artifacts at the site. Testing at an antebellum school (Woodville Academy) in Sumter County, South Carolina also revealed a low density of artifacts (Trinkely et al. 1985), although not as low as those recovered from 9LI521. The school (9LI521) may also have been completely destroyed during the construction and paving of Georgia State Highway 144.

Site 9LI520 is an historic site also associated with a structure on the historic map. This site was also disturbed, but did produce a higher density of artifacts than 9LI519 and 9LI521. This site is recommended as ineligible because it does not have integrity.

In these survey tracts, all structures shown on the historic maps are represented in the archaeological record, although in four cases, the sites are heavily disturbed. Two structures are now represented only as Isolated finds, indicating the level of damage they have been sustained.

NRMU B7.2 and B7.3

Historic maps for survey tracts B7.2 and B7.3 show a total of four historic sites within the survey boundaries, two of which were relocated (Figure 94). Two additional structures and a cluster of structures are located directly east of the road (now Fort Stewart Road 47) that served as the eastern survey boundary. No trace of these structures was located during this survey. Four additional isolated historic or multicomponent sites were located that have no associated structures on the historic map.

Site 9LI315, a historic site, is associated with a structure on the historic map, although no standing architecture was present at the site. The site produced a high density of historic artifacts and has the data sets and integrity necessary for a recommendation of potentially eligible.

Site 9LI499, a historic site, was relocated during shovel testing, but was not further tested during this survey because it had recently been tested by ORISE interns. They noted that the large site appeared to have been bulldozed and completely destroyed, resulting in a not eligible recommendation.

Two out of three historic structures shown on the maps for these two survey tracts are represented in the archaeological record, although one has sustained considerable damage through bulldozing. Other sites, located directly east of the survey boundary road, are not represented archaeologically in the survey tracts and may either be contained east of the road, or were destroyed during military activities.

NRMU E6.3

The associated historic map for survey tract E6.3, shows only one structure within the survey boundary (Figure 95). This structure was not located and no above-ground architectural remains were encountered. It is possible that the surface remains in this area, which has been extensively used for military activities, have been completely destroyed. Subsurface testing was not undertaken, due to the presence of unexploded ordnance, so the potential for subsurface remains cannot be addressed. This survey tract did contain a historic site that is not shown on the historic map.

NRMU E8.3

Four historic structures are shown on the Pembroke and Hinesville 1918 edition quad maps for survey tract NRMU E8.3 (Figure 96). Of these, only one was located. Site 9LI338, located directly north of survey boundary Fort Stewart Road 85, is shown on the historic map. The Dukes railroad stop, located east of the survey tract is not represented archaeologically in NRMU E8.3.

Sites 9LI510 and 9LI527 may both have been associated with the structure shown on the map, although we have examined these as two different sites because they are separated by a road. Both 9LI510 and 9LI527

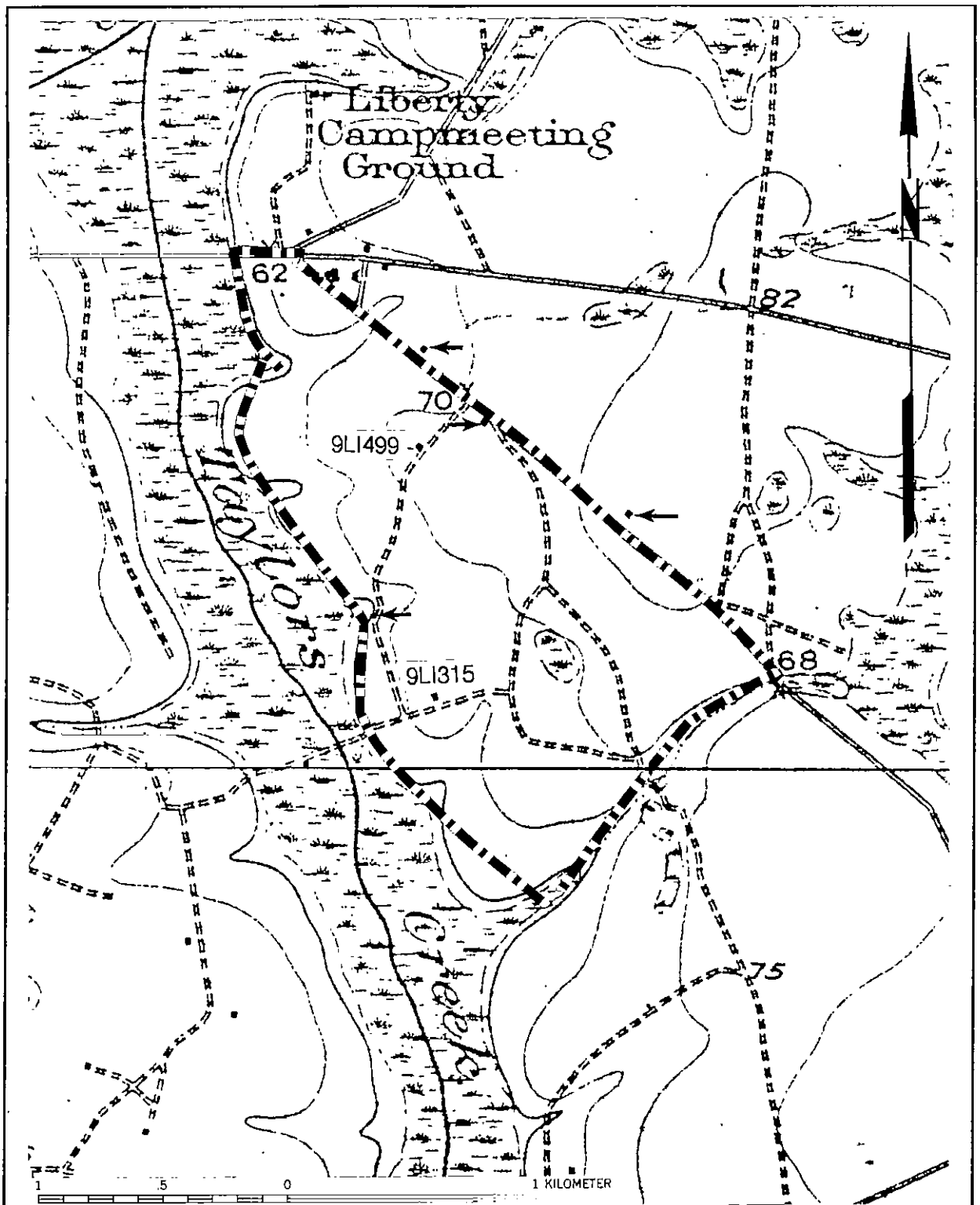

Figure 94; Historic map showing sites and structures not located in NRMU B7.2 and B7.3 (Hinesville 1918).

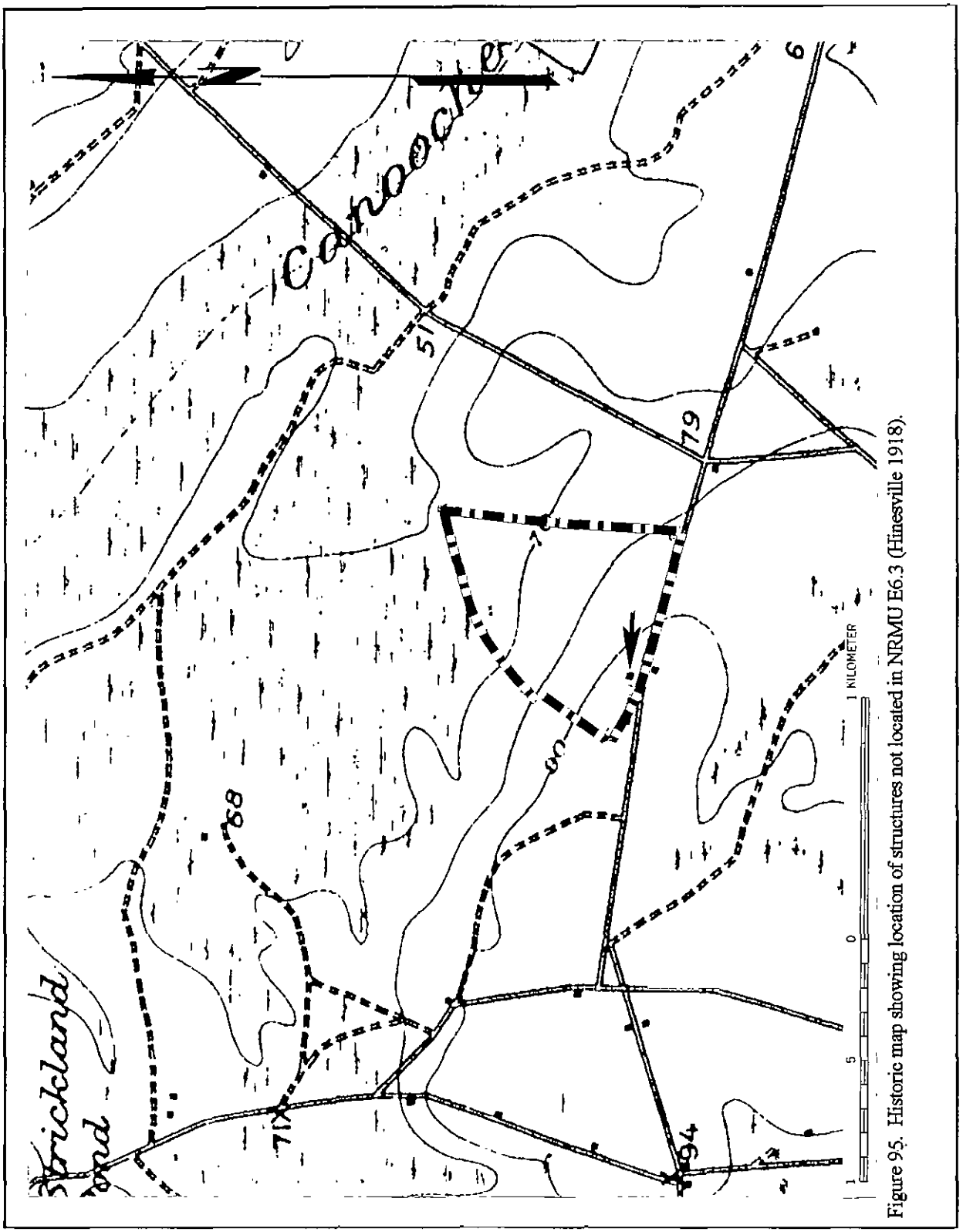

Figure 95. Historic map showing location of structures not located in NRMU E6.3 (Hinesville 1918).

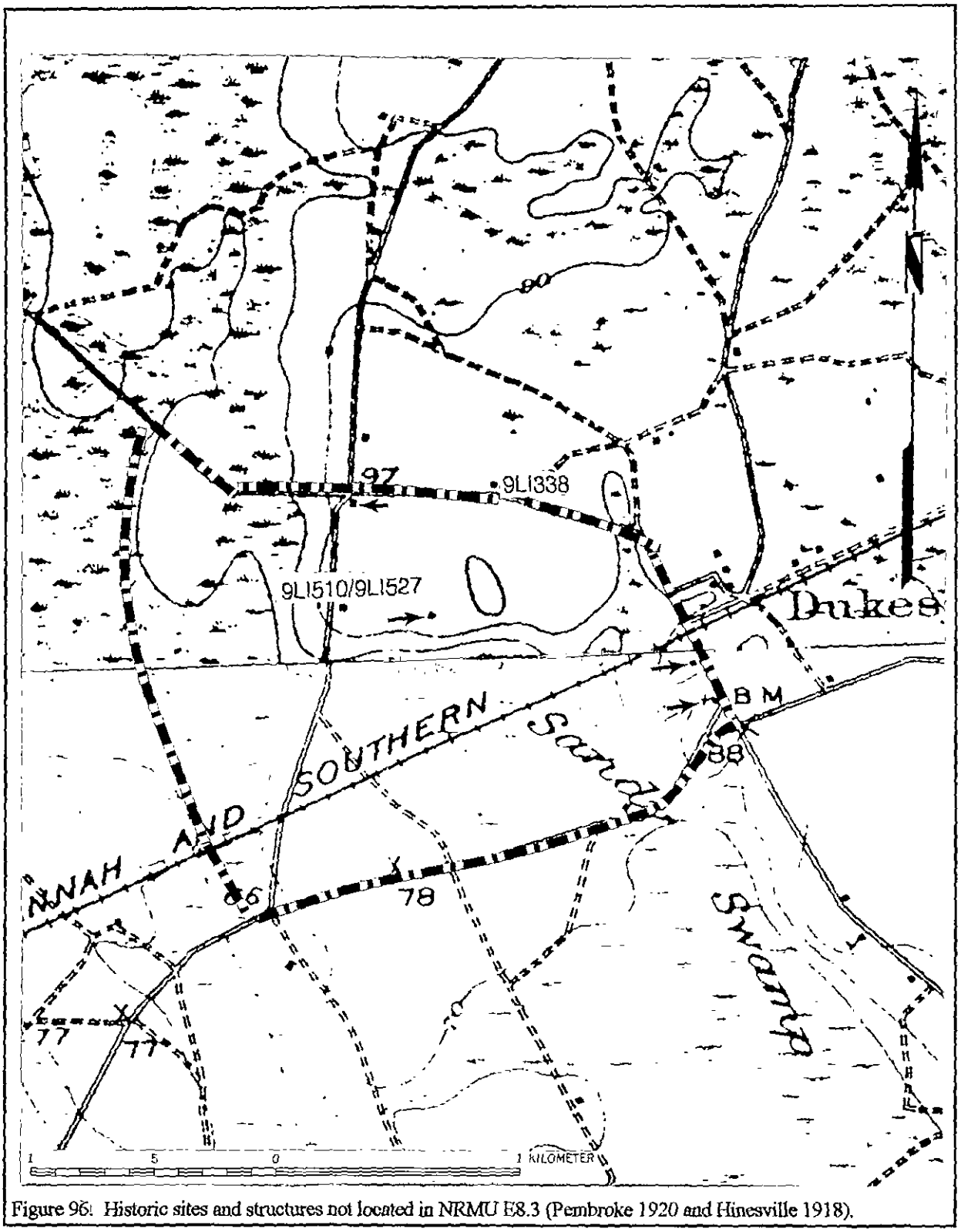

Figure 96. Historic sites and structures not located in NRMU E8.3 (Pembroke 1920 and Hinesville 1918).

are disturbed, with 9LI527 appearing to have sustained the most damage. These sites have been recommended as ineligible.

Site 9LI338 was located in this survey tract, but only as an Isolated find. The site was originally located north of Fort Stewart Road 85 by David McKivergan and was recommended as ineligible.

The low expression of the historic structures in the archaeological record for this tract suggests that either these sites have been destroyed, or that 30 m interval transects are not sufficient for recovering historic sites in this particular setting. In the case of the structure located at the intersection of the two roads, it is more likely that the site was completely destroyed during military maneuvers in the area. The structure located south of the railroad grade, a church, was located in an area of the tract that appears to have been cleared, and was probably also completely destroyed. This church was most likely associated with the Bethany-Todd Ray Cemetery located in this area of the survey tract. The structure located southwest of 9LI510/9LI527 was not located, even in this area of high probability testing, indicating that the site may have been destroyed or was small enough to be missed by 30 m interval transects.

NRMU F7.2

Survey tract NRMU F7.2, which also contained unexploded ordnance, contained the possible surface remains of two structures shown on the historic map (Figure 97). One of these sites, 9EV117, is most likely associated with the historic structure located on the map, although it is situated west of Fort Stewart Road T11, the western survey boundary for this tract. Site 9EV121 was also shown on the historic map as a structure, although the only architectural surface remains located was a small pile of bricks. Four additional historic sites and one isolated historic site were located in this survey tract, but are not shown on the historic map.

NRMU F17.3

The Willie community, partially represented by site 9LI312 in NRMU F17.3, encompasses a large area, extending far beyond the survey tract, and contains a number of structures on the historic Pembroke and Hinesville maps (Figure 98). The enlarged area, showing survey tract NRMU F17.3, still depicts a high number of structures clustered in some areas that makes it difficult to associate individual structures with sites. In doing so, we have determined which structures are most likely to be located sites. In such a structurally dense area, additional testing would further define individual structures.

Seven loci of artifact concentrations were identified within 9LI312 and are shown on Figure 98. Again, these are structures that are most likely represented by the various loci. Loci 1 and 2 were both isolated finds, while Loci 3, 4, 5, and 6 contained standing architectural remains and piles of brick. Loci 5 and 6 are grouped together because they probably represent a single structure. Locus 7, which sits on the edge of a borrow pit and adjacent to Georgia State Highway 119, is not shown on the historic map as a structure. Other isolated historic sites in NRMU F17.3, 9LI530 and 9LI531, are not associated with structures on the historic map.

Six obvious historic structures on the historic maps for NRMU F17.3 were not located during the survey, suggesting that these sites have either been destroyed by activities that have taken place in this tract, or remains were sparse enough (or sites small enough) that 30 m interval transects cannot locate the sites.

Summary

A total of 33 historic structures are shown on historic maps for the survey tracts. In comparison, 16 sites are likely to be associated with these structures, representing 48% of the total structures shown on maps. The percentage of sites located, based on the historic maps, varies with each survey tract, suggesting that each tract is subject to differing levels of damage and preservation of these historic structures. This small sample of historic maps on base better frames comments made by Thomas et al. (1995:205) on the success of locating historic sites.

In many cases, sites were located that are not associated with any structures on the historic maps, suggesting that a reliance on maps alone will not accurately recover archaeological sites. This also suggests that while the maps are a good beginning point for locating structures, they may not reveal all of the historic structures in an area. Nine of the fourteen sites not associated with structures on maps (9LI375, 9LI508, 9LI514 and 9LI318 in NRMU B7.2; 9LI516 in NRMU B7.3; 9LI513 in NRMU E6.3; 9LI528 in NRMU E8.3;

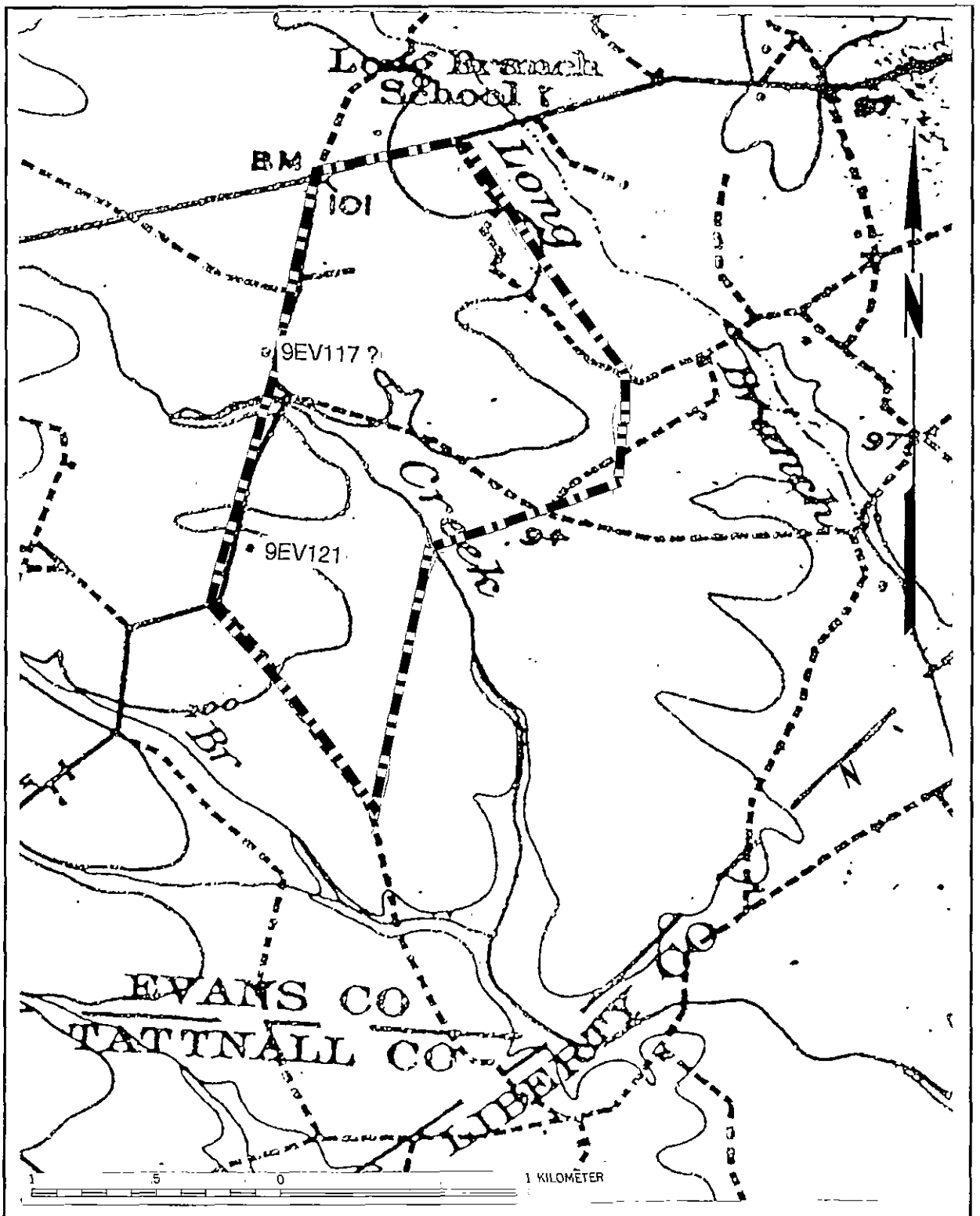

Figure 97. Historic sites located in NRMU F7.2 (Claxton 1919).

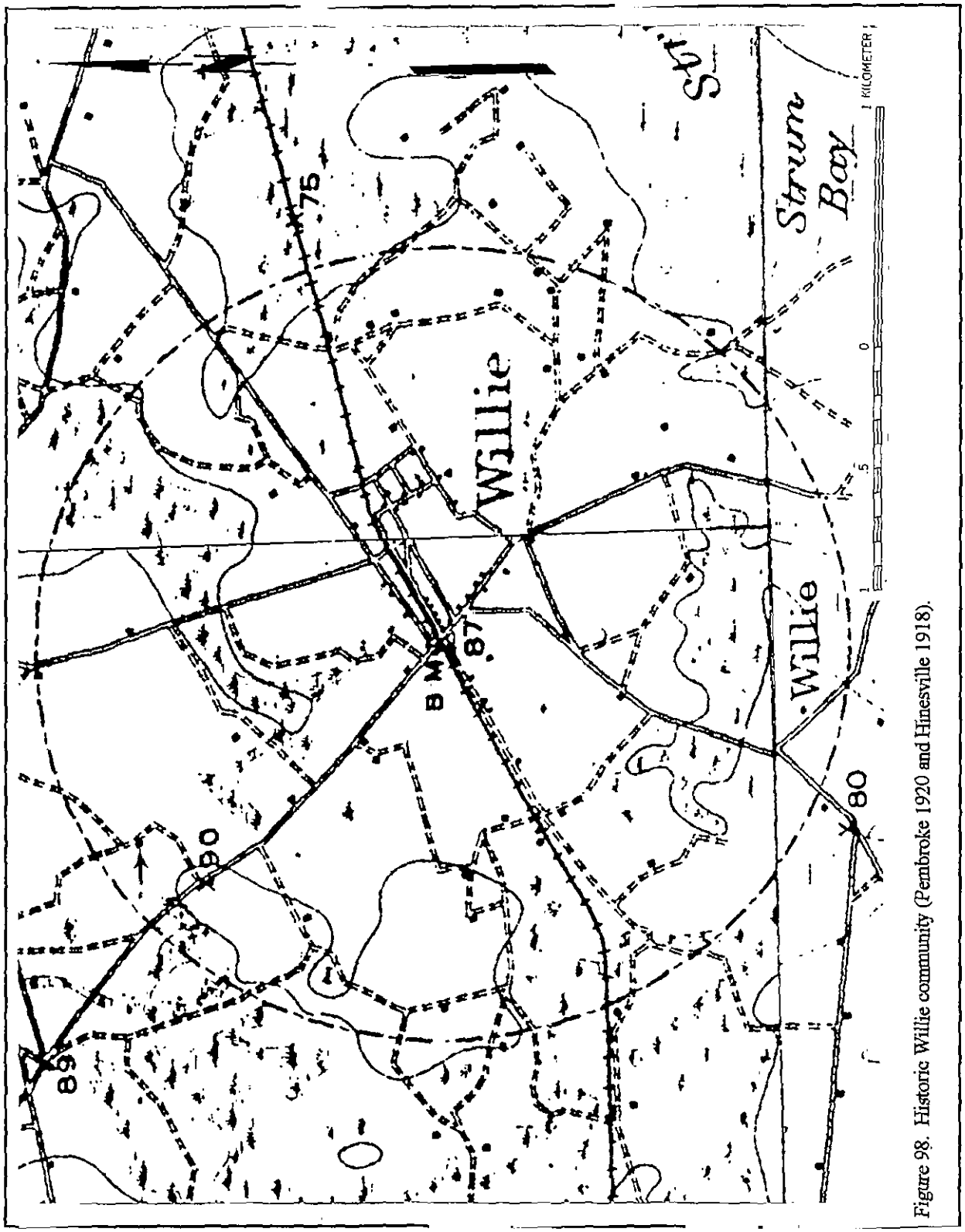

Figure 98. Historic Willie community (Pembroke 1920 and Hinesville 1918).

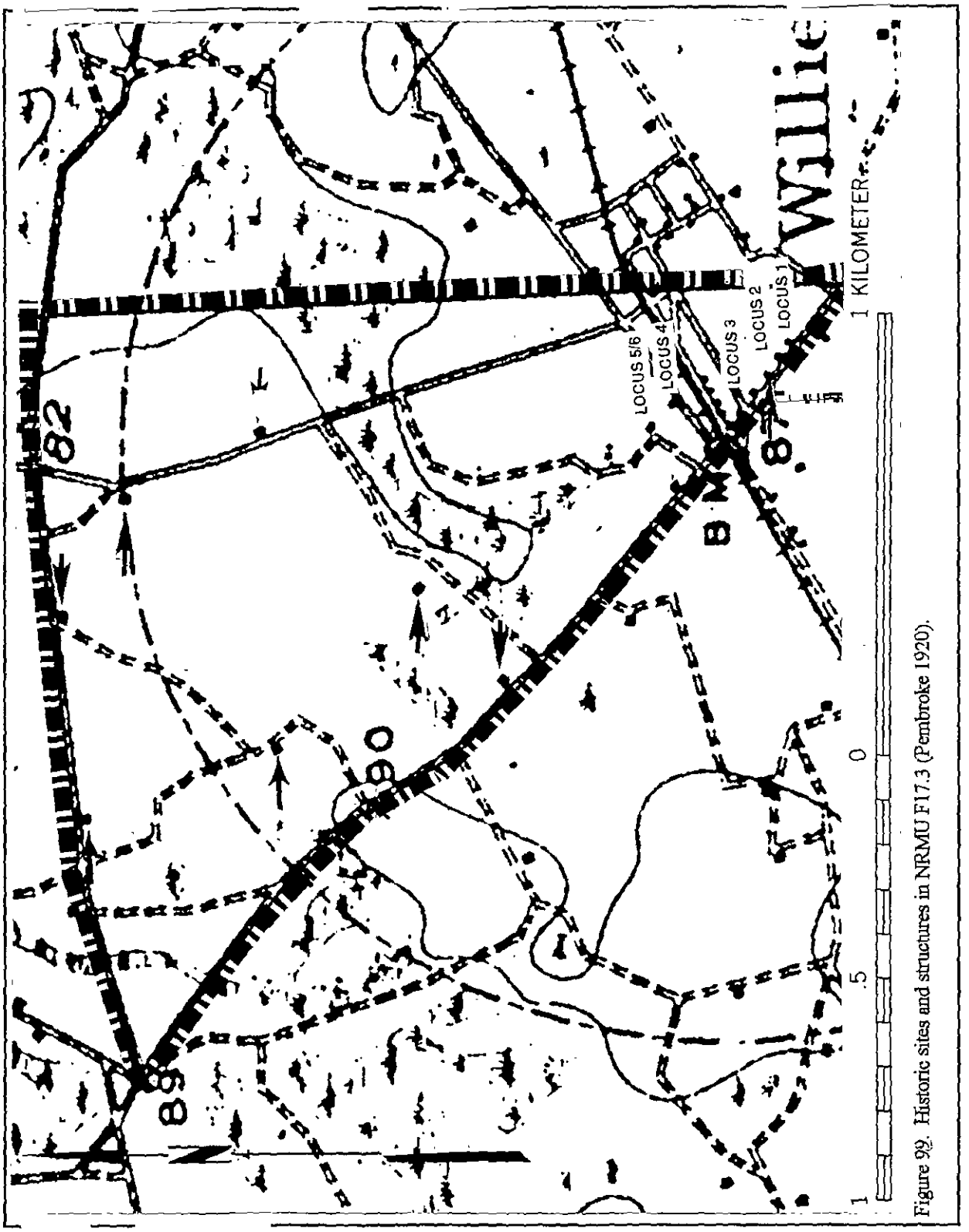

Figure 99. Historic sites and structures in NRMU F17.3 (Pembroke 1920).

9EV116, 9EV118, 9EV119, 9EV120, and 9EV122 in NRMU F7.2; and 9LI530 and 9LI531 in NRMU F17.3) represent *isolated* historic finds.

These sites may not have been recorded on maps by cartographers because they represent buildings that were perceived as inconsequential or temporary. Perhaps these buildings were temporary structures, which would explain the low density of artifacts at some of these sites. Another explanation for the absence of the historic sites on the maps is that these houses were not constructed, or had already been destroyed when the maps were drafted. The presence of five sites, rather than Isolated finds, in the walkover areas suggests that less ground disturbing activities are undertaken in areas that contain unexploded ordnance, and thus at least the sites' surface components are protected in these areas.

Regardless of the percentage of sites recovered, the database for historic structures for the Fort Stewart area is limited and warrants further testing of historic sites to determine patterns, or expectations, for certain types of historic structures. The affirmation of sites located on historic maps should not preclude the testing of historic sites, but adds to our understanding of these sites.

Overview of Potentially Eligible Sites

Eleven sites have been recommended as potentially eligible for inclusion on the National Register of Historic Places — 9LI312, 9LI315, 9LI452, 9LI484, 9LI507, 9LI509, 9LI512, 9LI517, 9LI529, 9LI532 and 9LI534. Fort Stewart classifies such sites as "indeterminate."

9LI312

Site 9LI312, the historic Willie community, was first recorded in 1994 and relocated during this survey. The community was first established in 1911 as a tram depot and grew to include stores, a cotton mill, a saw mill, a turpentine still, a church, and a school. Both black and white families lived in Willie, with the black population drawn to the town mainly for work in the naval stores and logging industries. The black families often lived in housing provided by industry (Campbell et al. 1996:136).

This site was originally recorded as extending into adjoining training areas, which have not been thoroughly assessed. While we recommend that the portion of the site in NRMU F17.3 be considered potentially eligible (indeterminate) based on the potential to answer significant research questions, it is also recommended as potentially eligible until a survey in the adjoining training . areas addresses the site's integrity and boundary.

During this survey, a number of artifact concentrations and some architectural remnants were identified, which most likely represent the remains of historic structures shown on the 1920 Pembroke USGS quad map. The current study indicates that it is possible to discern at least some artifact concentrations using 30 m intervals, and testing of the surrounding areas will further define the boundaries of the Willie site and locate artifact concentrations in these areas. Additional historic research may provide information on town lot ownership in Willie. The Willie site therefore has the potential to address research questions regarding issues of status, class, and race in the rural Georgia during the early twentieth century. Both archaeological and historical research at the Willie site can help us understand the interaction of the black and white populations in Willie by examining the landscape of the town, and noting the spatial patterning of stores, industrial structures, homes and farms.

Yet, these questions must be evaluated in terms of the data set's ability to address them. Under Criterion D, a site must yield or be able to yield, information important in history. Specific concerns are location, design, materials, and associative integrity.

In the case of 9LI312, locational integrity is relatively high. Despite damage to the area by military actives, the site remains relatively intact. Shovel testing discerned artifact concentrations and architectural remains.

Elements of design are generally translated into intra-site artifact and feature patterning. A number of structural features are still present at the site, including a well and brick features, and the preservation of these specific site features and areas suggests that intra-site patterning is present.

Materials include the physical items that were deposited during the period of the site's use which form particular patterns or configurations. There seem to be

few intrusive artifacts, such as a modern trash dump, or items associated with a military encampment. In fact, a number of items associated with the structures remain intact. The Willie site contains ceramic and glass assemblages that date the site to the early twentieth century, architectural features that can address the function of historic structures, and possibly sub-surface features. The distinct artifact concentrations are indicative of specific structures or activity areas within the Willie community.

Integrity of association is that direct link between the historic event and the property. It is often evaluated, for historic archaeological sites, in the context of the relationship between the site's data sets and the research questions. At 9LI312, not only do distinct structural areas exist, but subsurface materials and features may as well. Historic and ethnographic data ties the site to a larger historical context and allows the archaeological questions to be carefully framed.

Obviously, additional testing coupled with historic research and perhaps even the collection of oral history, are required to fully assess the eligibility. Until such time as this has been completed, we recommended that the site should be protected from military impacts. Any future activities affecting this portion of Fort Stewart should be made aware of the site's location.

9LI315

Site 9LI315 is a historic site located beside Fort Stewart Road 47A, near Taylors Creek, in NRMU B7.2, first identified by Thomas Pluckhahn of Southern Research. The site is bisected by an unnamed road that leads to Foodplot #410315. Artifacts indicate that the site was occupied during the late nineteenth and early twentieth centuries, and may represent the remains of a domestic site, shown on a 1918 Hinesville USGS map.

There are a number of questions concerning the late nineteenth century historic occupation of Fort Stewart which have yet to be addressed through archaeological research (Jackson et al. 1988:25-29; Campbell et al. 1996:123-127). For example, do the remains represent a domestic site, a small farm, or an industrial structure? Was it associated with a community in the area, or was it an isolated structure? While these may seem like basic questions, it is important to develop an understanding of the material and architectural remains that are associated with the types of historic structures found in the Fort Stewart area. Perhaps the material remains for a small farm will differ greatly from those of an industrial structure or turpentine camp. The site's location near Taylors Creek provides a unique opportunity to research subsistence practices of historic residents, and the extent of their reliance on Taylors Creek. In addition, site 9LI315 may address the patterning of sites in the Fort Stewart area, such as those located near roads and water sources.

Again, these research questions must be evaluated in terms of the data set's ability to address them. Under Criterion D, a site must yield or be able to yield, information important in history, and specific concerns are location, design, materials, and associative integrity.

Site 9LI315 appears to be relatively intact, although it is bisected by an unnamed road of an unknown construction date. The area does not appear to have been used frequently by the military. The site may be in danger of eroding, as Pluckhahn noted a number of surface artifacts in the road and at the large oak in 1994, which were not present at the time of the survey in 1998. The materials at site 9LI315 include a number of ceramics, glass, and architectural artifacts, including brick scatters. The subsurface remains suggest that the site is intact and may contain features.

It is difficult to address the design and integrity of association for site 9LI315 at this level of testing. At present, only further testing can determine whether the site has the potential to address research questions. Given this uncertainty, the only prudent approach is to assume that the site is potentially eligible until a more thorough survey determines otherwise. Any future projects affecting this portion, of Fort Stewart should be made aware of the sites location.

9LI452

Site 9LI452 is the rail bed of the Savannah and Southern Railroad. This site is located in both NRMU E8.3 and F17.3. The only remaining aspect of this railroad is the rail bed itself. No artifacts were found in either survey tract in conjunction with the rail bed. This rail bed also occurs in Long County as site number LG149.

The Georgia State Historic Preservation Division has outlined a number of significant issues that rail bed sites may be capable of addressing. These

include questions concerning the construction and maintenance of the railroad, and buildings and structures associated with the railroad and maintenance of the railroad.

The Georgia State Historic Preservation Division has also noted that in order to be eligible for inclusion on the National Register of Historic Places, a rail bed must have integrity of design, materials, setting, and location under Criterions A and C. If a railbed has the potential to yield information through archaeological research, it may be eligible under Criteria D. Site 9LI452 in NRMU E8.3 and F17.3 does not appear to posess integrity in design, materials, setting or location. Both rail beds have been dismantled and no evidence of associated hardware was recovered. In both tracts, the rail bed is overgrown with vegetation in the places it is visible. In addition, no artifacts were recovered from either tract in association with the railbed itself. It is therefore unlikely that site 9LI452 in these tracts contains data sets that can address significant research questions. However, because only a portion of the railbed in Liberty County has been assessed, we recommend the site as indeterminate (potentially eligible) until the remainder of the rail bed in Liberty County can be assessed.

9LI484

Site 9LI484 is an earthen dam located south of survey tract NRMU B7.2 in Taylors Creek. This site, visible from Fort Stewart Road 57A, was not assessed archaeologically because it was located outside of the survey tract. For this reason, we recommend this site as indeterminate (potentially eligible) until it can be further assessed.

9LI507

Site 9LI507 is a prehistoric site located on a bluff overlooking Taylors Creek in NRMU B7.2. Artifacts, mainly Deptford pottery, suggest that the site dates to the Middle Woodland period and was probably a habitation site.

Campbell et al. (1996:246) outline a number of important research questions that a Deptford occupation can address, including the nature of Deptford settlement and subsistence, the characteristics of the Deptford assemblage, they types and defining characteristics of Deptford sites, and the differences between interior and coastal Deptford occupations. Although Deptford occupation sites are very well represented at Fort Stewart, there are no sites mentioned in the HPP for this branch of Taylors Creek.

Site 9LI507 appears to be intact and have high locational integrity, with archaeological materials recovered from a sufficient depth, although there is some evidence that some of the A horizon has eroded. Impacts from military activities are low due to the site's location well off of the road. In addition, the site is deep enough so that it has not been disturbed by any activity that may have taken place.

The artifact density is relatively high at 9LI507 although elements of design, such as intra-site artifact patterning and feature patterning, are difficult to address from this survey. The relative depth of the site suggests that intact features may be present, but only additional testing will be able to ascertain the design elements that are still intact.

Materials at the site include Deptford pottery, and lithics. The only intrusive artifacts recovered was an unidentified brass fragment. No other military items or modern trash were found at the site.

The site is likely to have the potential to address research questions outlined above, based on the integrity of the site and the available data sets. We therefore recommend this site as potentially eligible (indeterminate), with the suggestion that further testing be undertaken to fully assess eligibility for the National Register of Historic Places. Until further testing , the site should be protected from military impacts.

9LI509

Site 9LI509, also a Deptford Middle Woodland prehistoric site, is located on a ridge top that gradually slopes to Taylors Creek, in NRMU B7.2. A number of diagnostic ceramics, mainly Deptford sherds, were recovered from the site, and the depth of these suggests that the site is intact and has suffered little erosional damage.

Site 9LI509 has the potential to address a number of research questions at both local and regional levels. As has been mentioned, Deptford Middle Woodland sites are well represented at Fort Stewart, but not on Taylors Creek (at the time of the HPP publication). Questions of local subsistence, seasonal use of the area,

and reliance on Taylors Creek are of particular interest for site 9LI509 because of its proximity to Taylors Creek. Research at both 9LI509 and nearby 9LI507 may provide information on the prehistoric settlement patterns in the area and the interaction and relationship between these two sites. Site 9LI509 can contribute to a better regional understanding of prehistoric life in the Pine Barren area and help refine chronology and phase development for the area.

The site has high locational integrity and does not appear to have been used for any military impacts. Archaeological materials are found at a depth that indicates that the site is intact. However, the site may be affected by erosion due to its location on a ridge top above Taylors Creek.

Additional testing at 9LI509 will be able to better determine the intra-site artifact patterning and feature patterning. Because the site does not appear to have been damaged, it may contain intact features. No intrusive artifacts were recovered from the site, and diagnostic materials include Deptford ceramics.

Additional testing at 9LI509 will help ascertain whether the site has the potential to address research questions outlined above. The site appears to have integrity and data sets for a recommendation of potentially eligible (indeterminate), while further testing will more fully assess eligibility for inclusion on the National Register of Historic Places. Until further testing, the site should be protected from any military, agricultural, or silvacultural activities.

9LI512

Site 9LI512 is the historic Bethany-Todd Ray Cemetery. It is located adjacent to Georgia State Highway 129 in NRMU E8.3. Research at the cemetery located ten unmarked graves and recorded 44 marked graves. The cemetery appears to have been used from at least the late nineteenth century until 1987. Many of the markers bear the surnames Todd and Ray.

As has been discussed, *National Register Bulletin 41* indicates that cemeteries can and should be assessed under criteria D because they yield or may be likely to yield information important in history, concerning socioeconomic status, and social organization. Cemeteries should also be considered potentially eligible to protect against the loss of biocultural and archaeological information in the event that a cemetery is moved or damaged during cemetery maintenance activities. For these reasons, we recommend that 9LI512 is potentially eligible for inclusion on the National Register of Historic Places and that the cemetery and immediate surrounding areas be protected from military activities.

9LI517

Site 9LI517 is a multicomponent site located at the intersection of Fort Stewart Road 51 and an un-named firebreak in NRMU A12.1, which served as the western and southern survey boundaries. Artifacts inlcuded both historic ceramics and glass and prehistoric lithics. It is possible that this site may represent a portion of a structure that appears on a Hinesville 1918 quad map.

There are a number of significant research questions concerning prehistoric use of the Fort Stewart area that can be addressed through archaeological research, including the function and duration of the site, subsistence in the area, and seasonal use of the area.

Although the edges of the site have been damaged, the site is stratified and the prehistoric artifacts generally came from a depth greater than 30 cm below the surface, suggesting that the prehistoric component of the site is intact. It is also possible that site 9LI517 stretches into areas outside of the survey boundary.

The design and integrity of association for site 9LI517 are difficult to address. Further testing in the adjacent areas will determine whether the site does extend across the roads, or is confined to NRMU A12.1. Examing the possibility that the site may extend across Fort Stewart Road 51 will help determine the site's potential to answer significant research questions. Until the surrounding areas are surveyed, the cautious approach is to assume that the site is indeterminate (potentially eligible).

9LI529

Site 9LI529 is the historic Porter cemetery located in NRMU F17.3. No historic information could be found for the cemetery, although its proximity to Willie suggests that it may be associated with this

community. The small cemetery includes one marker inside of a 3 m by 3 m wire fence and a total of six unmarked graves, three located inside of the fence, and three located outside of the fence. The concrete marker has eroded and is unreadable. The area surrounding the cemetery has been recently logged and trucks using the unnamed road beside the cemetery have damaged the area.

We recommend that the Porter Cemetery be considered potentially eligible to protect the cemetery from any further information loss, which has taken possibly occurred through fencing of the marker and silvacultural use of the area.

In addition, we recommend that historical research be undertaken in order to determine if the cemetery is associated with the Willie community and who is buried in the cemetery. Porter cemetery and should also be placed off-limits to any vehicle traffic.

9LI532

Site 9LI532 is the historic Parker-Sapp Cemetery in NRMU A12.2. The cemetery is enclosed in a wire fence and contains five gravestones, four of which are unreadable. The one marker that can be read is a marble military issue marker erected for Private Mack M. Parker who served for the Confederate States of America and died December 10, 1909. No other information about the cemetery could be located, and early twentieth century historic maps for this portion of the base do not exist.

This cemetery, like the other two historic cemeteries discussed above, is recommended as potentially eligible. Historic cemeteries have the potential to address socioeconomic status and social organization. The Parker-Sapp Cemetery is also recommended as potentially eligible to protect it from damage during the course of cemetery maintenance, or in the event that it is moved. Damage or destruction would result in the loss of archaeological and biocultural information that can address status and social organization in rural Georgia.

We also recommend that further historical research be undertaken to determine the identities of the people buried in the cemetery and any historic structures or communities with which the cemetery may have been associated. The cemetery should be placed off-limits from any military activity.

9LI534

Site 9LI534 is a multicomponent site in NRMU A12.2, located 40 m south of the Parker-Sapp cemetery. The site covers an area 7,000 m^2, and includes historic artifacts characteristic of the early twentieth century, and six prehistoric lithics. Some modern trash was located at the southwestern edge of the site, but was not intrusive in the subsurface remains. The site probably represents a historic structure shown on the 1958PR73 USGS Limerick NW quad map.

Site 9LI534 is unique because it is located only 40 m south of the Parker-Sapp cemetery. It is based on this location that a number of significant research questions can be addressed. First, this site will add to the very limited database of historic sites for the Fort Stewart area, and will aid in the identification of potential historic sites on the base with low artifact densities. Second, the site has the potential to address the significance of sites located near cemeteries in rural Georgia, and at the least, to address the types of sites located near (and possibly in association with) historic cemeteries. These may include small churches or cooling houses associated with the cemetery. Third, the site has the potential to explore historic landscape use in the Fort Stewart area.

Locational integrity for site 9LI534 seems relatively high: the site does not appear to have been damaged by military activities. The presence of modern trash at the surface of the site edge is not a concern because modern trash was not present in any subsurface tests.

Although the artifact density is low, it is likely that the site has the data sets necessary to address the questions mentioned above. Even at the level of testing performed during this survey, the site appeared to have a concentration of artifacts, suggesting that intra-site patterning may be present. Garrow (1982) and Garrow and Klein (1984) have suggested that areas used as public spaces, determined through the Public Interaction Sphere Artifact Pattern, have lower artifact densities than sites that served only household functions. Trinkley et al. (1985) also found that public buildings, such as an antebellum school in Sumter County, South Carolina, produce low densities of artifacts.

Integrity of association at 9LI534 is difficult to

address, and further testing will determine the site's ability to address significant questions. This discussion has suggested that an artifact pattern may exist within a clear historic context. Based on this review of site integrity, we conclude that the site is likely to be able to address significant research questions outlined above. We therefore recommend the site as indeterminate (potentially eligible) for inclusion on the National Register of Historic Places. Prior to additional testing, historic research and oral history research may elucidate the function of the site, indicating the appropriate level of archaeological testing. Additional reseach is required to fully assess eligibility for site 9LI534. Until such research has been undertaken, we recommend that the site be protected from military impacts.

Site Management

The eleven sites determined potentially eligible for inclusion on the National Register (known as "indeterminate"), should be avoided by all ground disturbing activities until additional survey or testing can be accomplished.

Sites 9LI534, 9LI517, 9LI315, and portions of 9LI312 are located at intersections, which according to bivouac patterns established in this and previous studies (Trinkley et al. 1996a, 1997, 1998), place these sites in an area considered highly accessible to training exercises. These area should be placed off-limits until the necessary testing can be accomplished.

The historic cemetery sites, 9LI532, 9LI512, and 9LI529, are contained in fences and appear to be in no apparent danger from military activities, except for those graves located outside of the fenced areas. The Porter Cemetery is of notable concern since these graves are located quite close to a road used by trucks. The Porter Cemetery and surrounding area should be placed off-limits to *any* activity until precautions are taken to protect these unmarked graves. It is suggested that the other cemeteries and surrounding areas continue to be placed off-limits for military activities.

Sites 9LI507 and 9LI509 are located in NRMU B7.2, which is adjacent to the Small Arms Impact Area. Precautions should be taken to ensure that these sites are not impacted by any military activities and are placed off-limits until further testing is accomplished.

Sites 9LI452 and 9LI484 do not appear to be in any immediate danger, although these sites should not be subjected to any logging activities.

The Current Predictive Model and Land Use

As was briefly discussed in the **Prehistoric and Historic Overview** section, Fort Stewart has a predictive model developed by a rather limited survey, but "rigorous statistical manipulation of the survey results in relation to soil zones" (Campbell et al. 1996:203). The result was a series of 1:50,000 scale map which have "disappeared" (Campbell et al. 1996:211). Consequently, "the greatest problem with the model is that it cannot be duplicated" (Campbell et al. 1996:211).

Regardless, a reconstruction of this model by Campbell et al. (1996:214-217) led to the predictive maps for certain sections of the base. The original predictive model, which apparently used soils, stream rank, and perhaps other factors, has been reduced essentially to a reliance on soil drainage (Campbell et al. 1996:215-217).

Soils of the Albany, Dothan, Fuquay, Oscilla, Stilson, and Tifton series are classified by the current predictive model as having a high probability of archaeological remains (see Campbell et al. 1996:216). This is in spite of the fact that the Albany Series soils are classified as somewhat poorly drained and occurring on nearly level areas (Looper 1982:19). The current model includes moderately well drained soils such as the Blanton Series (Looper 1989:21, 24) in the category of "indeterminate".

The five prehistoric sites are located on Leefield (n=1), Osier and Bibb (n=2), and Johnston and Bibb (n=1) soils. The historic sites occur on Pooler (n=5), Blanton (n=2), Albany (n=2), Ocilla (n=2), Chipley (n=1), Stilson (n=6), Mandarin (n=1), Leefield (n=5), Fuquay (n=4), Pelham (n=7), and Osier and Bibb (n=1) soils. Multicomponent sites were located on Pooler (n=1), Pelham (n=1), Leefield (n=1), and Stilson (n=1) soils.

As seen in Tables 20, 21 and 22, the association between soil type and site location may be tenuous at best. In total, Pelahm, Leefield, Stilson and Pooler series soils contained the highest number of sites, of which only Stilson is considered a high probability soil. However, in total, 9% of the sites were found on soils that account for only 1% of the survey area. The

largest percentage of sites (38%) occurred on poorly drained soils, which account for 56% of the total soils. Although most sites are located on poorly drained soils, they still represent a low proportion, given the amount of poor drainage. This suggests that poorly drained soils will not contain the same number of sites that well drained soils will contain.

The reader should understand that although the acreage involved in the survey tract was very large, the number of identified sites is relatively small. Hence, sample size is a concern. With this said, how may all this data be summarized? First, it seems obvious that in some cases there was very little choice other than to locate on poorly drained soils. This is seen on survey tracts NRMU A9.1, A12.1, A12.2, B7.3, E8.3, and F7.2. The fact that sites occur in these areas should be a clear indication that there are other determinants besides soil drainage. Something else was drawing prehistoric and historic settlement to these spots. Second, in other areas there was a clear, and convincing choice made for settlement on well drained soils. This is seen perhaps best on tract B7.2 and E8.3. We cannot, however, say that other factors were not also at work in these areas.

Our study, however, may do more to demonstrate that site probabilities are best based on a broad range of factors than to confirm the current predictive model. Similar to past studies (Trinkley et al. 1996a, 1997, and 1998), when the location of the prehistoric sites is examined there is an equally strong correlation between site location and topography.

The two large prehistoric sites are situated on high ground overlooking Taylors Creek on somewhat poorly drained and poorly drained soils. The other isolated prehistoric sites and multicomponent sites are located in very poorly drained to poorly drained soils, suggesting that soil drainage characteristics were not a consideration in the placement of sites. Further, not all of the available, seemingly appropriate, topographic settings were utilized which suggests there are additional, as yet unclear, factors affecting site locations.

Environmentally, the location of historic sites maybe a little more clear. The large Willie site is situated on both somewhat poorly drained and well drained soils. In areas with significant percentages of moderately well and well drained soils, NRMU B7.2 and E8.3, more than half of the historic sites were located on moderately well to well drained soils. But, in those survey tracts with a small percentage of moderately well to well drained soils, out of 27 sites, only five are located on moderately well or well drained soils. It is difficult to draw conclusions from the small sample of sites found on these survey tracts and the overwhelming representation of poorly drained soils versus well drained soils. The data suggest that when possible, late nineteenth and early twentieth century historic locations are located on well drained soils, but when there was not a choice, sites were located on poorly drained soils, suggesting that location may be more dependent on commercial, industrial, and agricultural needs than on soils, water, or topography.

Of course agriculture itself incorporates issues of soil, water, and topography. To some degree industrial interests, such as milling, also incorporate issues of water and topography. And commercial activities, such as railroads, are also affected by topography (and possibly even soils and water). Yet, the point we make is that commercial, industrial, and agricultural issues are affected by far larger issues, such as economic and social issues, than simply soils, water, or topography.

Historic site locations tend to be found near roads; a majority of which were public prior to the acquisition of the Fort Stewart property in the 1940s, as can be seen in the historic maps for the survey tracts. In all of the historic maps for the survey tracts, only one structure, in NRMU E8.3, is not located near a road. Of the historic sites and isolated occurrences located during the survey, six were found in areas that were not directly adjacent to roads, but were within 50 to 200 m of a road.

When compared to previous surveys, a pattern for historic site location emerges. In the survey of tracts designated as "A-N," it was found that of the 30 historic sites, 13% were located at intersections, 30%, were located on a road, and 57% were within 50 to 510 m of a road (Trinkely et al. 1998). In the JAECK Drop Zone survey tract (Trinkley et al. 1996) two historic sites were recovered, both at intersections. Of the 32 sites recovered from two survey tracts in 1997 (Trinkley et al. 1997a), nine, or 28% were found at intersections, eight, or 25% were found on a road, and 47% were within 90 to 390 m of a road. Clearly, there is a correlation between road and historic site locations.

Although data from these studies is not adequate to support revisions in the Fort Stewart predictive model, they do suggest, first, that site density is likely to exhibit considerable variation, and second, that the factors

affecting site locations are more complex than the current model suggests.

Site Density

The survey tracts were not concentrated in any one specific area of Fort Stewart, although no survey tracts were located in the northeastern portion of the base. When sites and isolated occurrences are taken into account, they yielded a site density of 0.26 per km². Site densities are less than half of that projected by Miller (in Campbell et al. 1996), although this number does compare well to survey tract "B," surveyed in 1996-1997, of 0.3 sites per km² (Trinkley et al. 1997:135). Site densities, overall, ranged from 0.71 sites per km² in NRMU E6.3 to 0.17 sites per km² in survey tract NRMU B7.2.

The difference in site densities between the nine survey tracts is at least partially accounted for in the environment, topography, and the location of historic roads in the survey tracts. The majority of soils in the survey tracts are characterized as very poorly, poorly or somewhat poorly drained. None of the survey tracts were dominated by moderately well drained soils. Tracts NRMU A9.1, A12.1, A12.2, and F7.2 were especially poorly drained, with moderately drained soils representing less than 5% of the total soils in each tract. Moderately well drained soils represented 12-20% of total soils in the remainder of the survey tracts. Tracts NRMU B7.2 and F17.3 contained 9% and 14% well drained soils, which includes Fuquay and Dothan series soils.

Overview of the Fort Stewart Chronology

One of the questions raised in the overview of the regional prehistoric chronologies was whether the Fort Stewart area was closely tied to the chronology proposed for the mouth of the Savannah River, or if the chronology suggested by more interior locations, such as the Ocmulgee Big Bend area, might be more appropriate. Like many of the other questions proposed, the data are sparse and we can only make tentative stabs at answering this question.

Figure 99 illustrates representative prehistoric artifacts recovered during this survey, including a nutting stone recovered from 9EV123, a perforated soapstone recovered from 9LI507, and Deptford and Savannah ceramics recovered from 9LI507 and 9LI509. These specimens illustrate the Middle and Late Woodland range likely present, suggesting that the area was largely used for foraging and hunting, with seasonal camps.

The perforated soapstone disc, which is not common to this area of Georgia, indicates that Woodland inhabitants were engaged in trading for these types of materials. In addition, these discs are usually linked to Late Archaic sites, although research has shown that these discs occur on Thom's Creek and Deptford sites that show no other evidence of a Late Archaic occupation.

Although in previous studies (Trinkley et al. 1996a) it was found that there seem to be aspects of both coastal and interior coastal plain cultures present on Fort Stewart, the present study found that very little prehistoric occupation has occurred between the broad drainages south of the Ogeechee River. What little there is, suggested by the presence of Deptford Plain and Cord Marked pottery (Figure 100), occurred during the Woodland Period. Yet, even the data to support this assessment is very sparse.

As seen today, the project area does not contain any substantial water resources other than that provided by swamp margins and relatively shallow portions of the Taylors Creek and Canoochee drainage. As well, the topography of the project area is relatively flat thus does not offer any observation areas where prehistoric sites are commonly found.

Historic occupation of the base is found in the form of dispersed settlements and small communities. Many of these sites are located on early topographic maps of the base. The combined use of period maps and oral histories would likely provide the location of a great many unrecovered sites on Fort Stewart. As seen above, pre-base extant roads and intersections should be considered high probability areas for the discovery of historic sites.

These sites produce an array of artifacts that range from domestic items such as canning jars, pharmaceutical and liquor bottles to ceramics. However, historic sites in these survey tracts failed to produce many diagnostic artifacts. The most notable historic artifacts are a vehicle identification tag, a small portion of bisque porcelain doll's head and a USA 5-cents coin, shown in Figure 101.

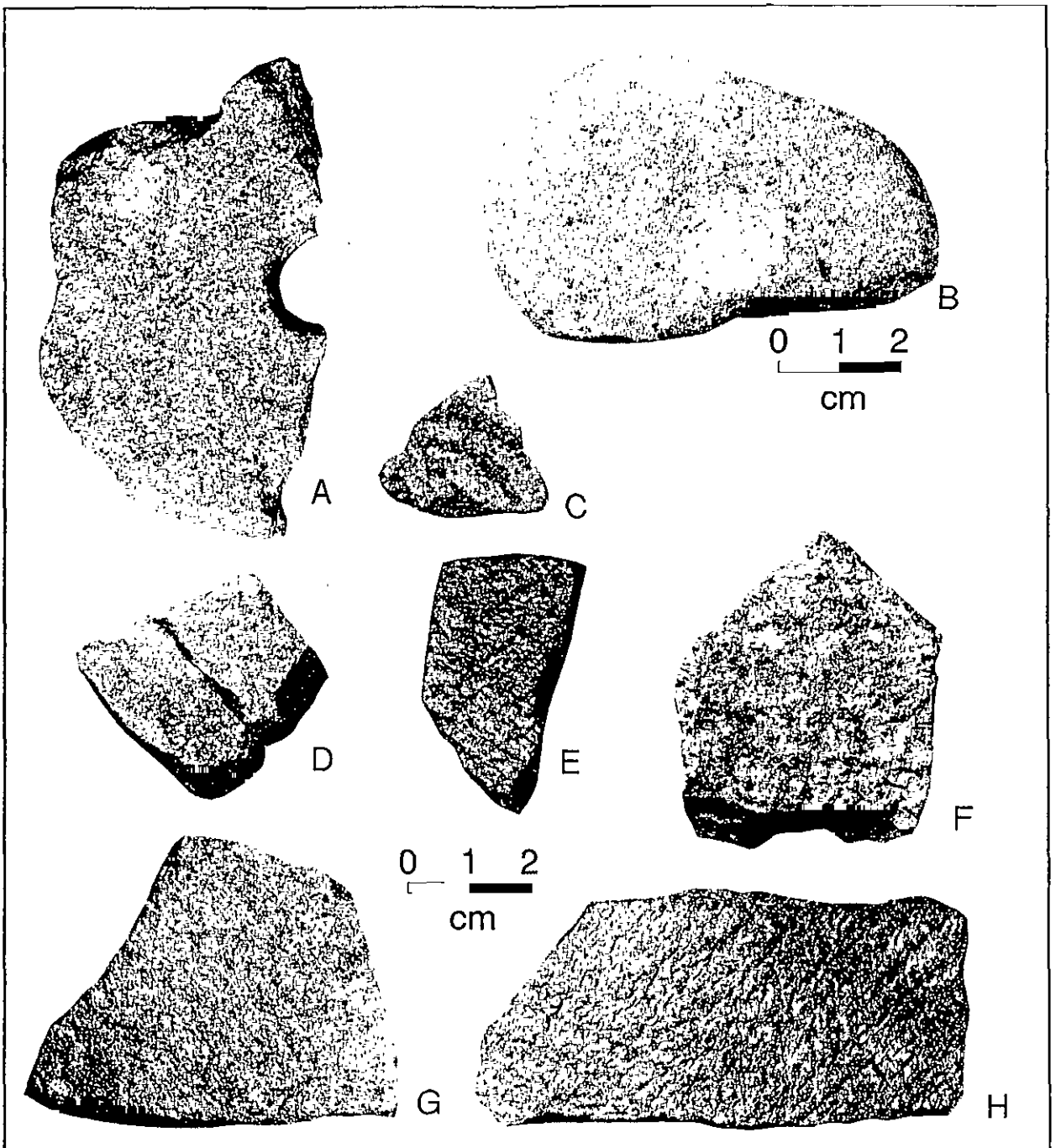

Figure 100. Prehistoric artifacts. A, perforated soapstone disc (9LI507); B, nutting stone (9EV123); C, Savannah Complicated Stamped sherd (9LI507); D, Deptford Complicated Stamped sherd (9LI507); E and H, Deptford Cord Mark sherds (9LI509); F, Deptford Check Stamped sherd (9LI507); G, Deptford Simple Stamped sherd (9LI507).

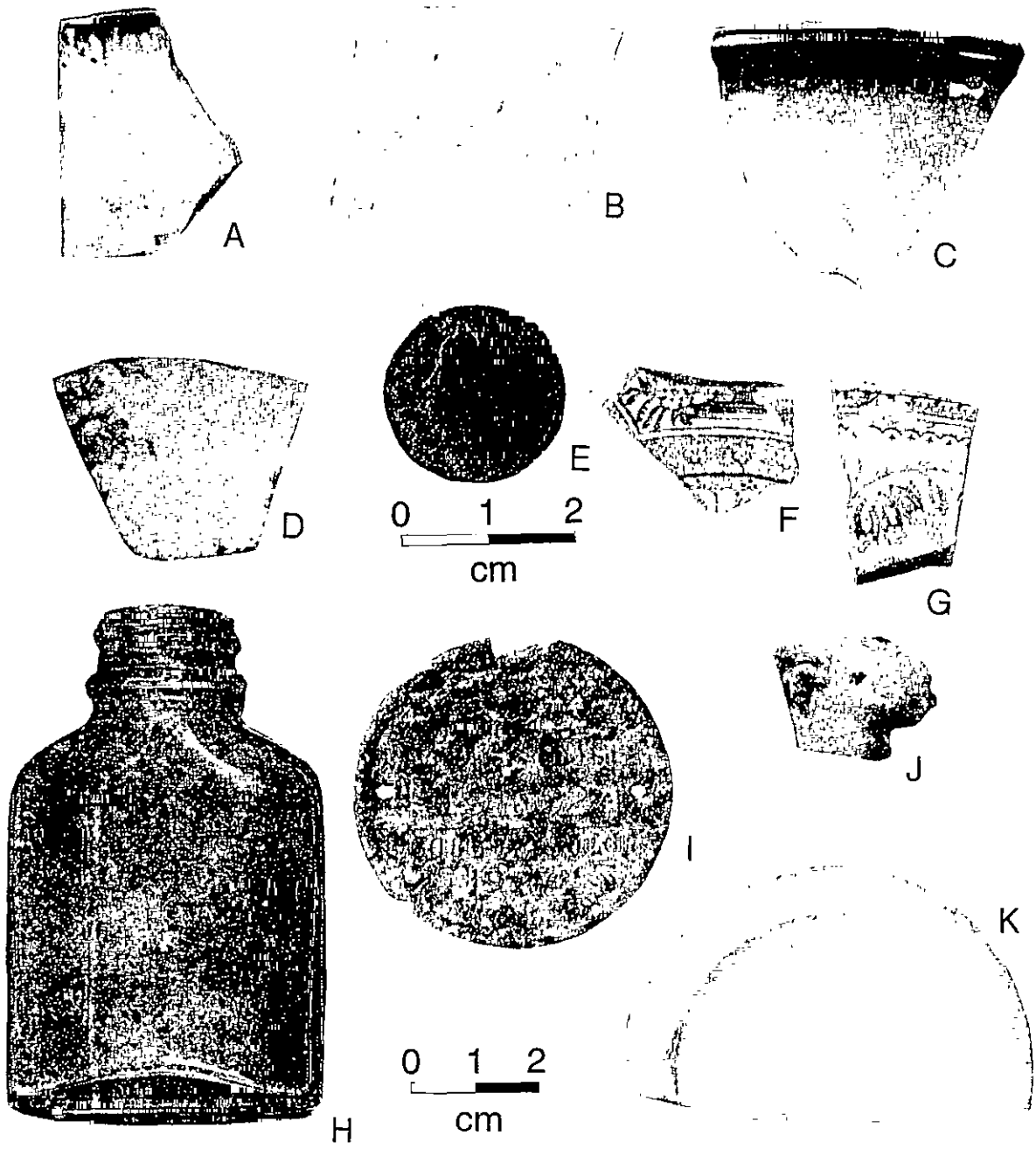

Figure 101. Historic artifacts. A, blue edged pearlware 9EV116); B, molded whiteware with cream tinted glaze (9EV119); C, pink edged whiteware (9EV119); D, decalcomania whiteware (9LI312); E, US 5¢ coin (9LI522); F, blue transfer printed whiteware (9EV121); G, green transfer printed whiteware (9LI259); H, clear glass bottle (9LI312); I, aluminum license tag (9EV116); J, porcelain doll's head (9LI315); K, milk glass jar liner (9EV119).

Effectiveness of Current Methodology

The primary methodological issue explored in this research is whether conventional shovel testing is an effective tool for the recovery of archaeological sites in the Fort Stewart setting.

There can be little doubt that shovel testing is the only effective tool for identifying archaeological sites in settings such as Fort Stewart. Even with the use of frequent burns as a forest management tool and the associated disturbance caused by the use of the base, ground visibility in the survey tracts was limited. Pedestrian survey in the two "walkover" survey tracts nine sites were identified, which represent 20% of the total sites identified for the entire survey area. None of these were prehistoric sites. Consequently, in this context shovel testing was both essential and successful.

A secondary concern was the use of high and low probabilities areas designated on the survey tracts. While we believe separating survey tracts according to high and low probability areas is useful for completing surveys, the manner in which the tracts are separated is not easily manageable in the field. For example, we are given copies of the soil maps for the survey tracts with the high and low probability areas clearly marked on the maps. The difficulty arises in attempting to translate the curved and amorphous shaped areas based entirely on soils into numbers of shovel tests on specific transects in the field. In all cases, we erred on the side of caution, and when in doubt, surveyed areas as high probability. However, this is not cost-effective as low probability areas are surveyed at a lower cost rate than high probability areas. We recommend that maps of high and low probability areas for future surveys are marked in such a way that these areas are more easily distinguishable in the field. This may be achieved by using the USGS map to distinguish the high and low probability areas.

Fort Stewart's consulting archaeologist David McKivergan has suggested that low probability areas be surveyed at 45 m intervals of transects and shovel tests. While this suggestion would homogenizeall archaeological work being done on Fort Stewart, it does pose other significant concerns for accurately surveying tracts of land that contain both high and low probabilities in amorphous shapes. Transects are generally laid off of roads that surround, or bisect, survey areas, in 30 m intervals which traverse a specified area and in many instances cross both high and low probability areas. When tracts are surveyed in this manner, technicians simply alter the distance between shovel tests in order to accommodate the probability designation. Obvious problems would then arise if areas are surveyed with two different transect intervals. First, it would be difficult to have a crew shift from a 30 m transect interval to a 45 m transect interval accurately, and then possibly convert back to 30 m transect intervals after passing through a low probability area. Second, reproducing these disparate sections of transects on maps accurately, and at a reasonable scale,would provide inadequate maps.

The most accurate means of surveying large tracts of land are the most simple by necessity, such as using one methodology for suveying an entire tract. However, the designation of low and high probability areas precludes surveying the area using a single methodology.

Another concern during this and other surveys is the amount of shovel tests excavated in seasonally wet areas. Previous surveys have been conducted during seasons when much of the tracts have contained standing water, or shallow water tables. Shovel tests in areas with shallow water tables are excavated until the test fills with water and all soil is screened.

Most of this survey was undertaken during the exceptionally dry months of May, June, and July. It was noted that many areas that are designated as swamps, or wetlands, were in fact dry during the survey. The vegetation in these areas exhibited characteristics of normally flooded areas, such as the water lines on the trees, the scouring of leaf litter, heavily reduced soil profiles, and the presence of wetland vegetation, such as cypress trees and bamboo plants.

Shovel tests were dug in all of these areas, with 90% of all tests dug in the survey tracts, and in some tracts, as many as 97% of tests were excavated. It must be noted that absolutely no sites or Isolated finds were encountered in these wetland areas. This finding has implications for future surveys. While most wetland areas are designated low probability and require that shovel tests are dug every 50 m, rather than every 30 m, the underbrush and vegetation in wetland and swamp areas is normally so thick that merely walking through the vegetation can be problematic. We suggest that wetland and swamp areas continue to be designated as low probability areas, limiting the time spent in areas that are

deficient in archaeological resources.

For future surveys we also recommend that a third category or level of investigation be defined for wetland areas, perhaps defined using the National Wetland Inventory maps prepared by the U.S. Fish and Wildlife Service. In these wetland areas, it might be appropriate to require shovel testing every 60 m at 60 m transect intervals.

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APPENDIX 1.
CATALOG OF RECOVERED MATERIALS

Acc. #	Box	Bag	County	Site #	Contractor	Project	Prov.	Contents	Date	Initial
040	1	1	Evans	9EV116	Chicora	Fort Stewart #8	Sur. E/Rd.	8 undecorated whiteware	Aug. 1998	DH
040	1	1	Evans	9EV116	Chicora	Fort Stewart #8	Sur. E/Rd.	2 poly hand painted whiteware	Aug. 1998	DH
040	1	1	Evans	9EV116	Chicora	Fort Stewart #8	Sur. E/Rd.	1 decalcomania whiteware	Aug. 1998	DH
040	1	1	Evans	9EV116	Chicora	Fort Stewart #8	Sur. E/Rd.	1 pearlware, undecorated	Aug. 1998	DH
040	1	1	Evans	9EV116	Chicora	Fort Stewart #8	Sur. E/Rd.	1 pearlware, blue edge	Aug. 1998	DH
040	1	1	Evans	9EV116	Chicora	Fort Stewart #8	Sur. E/Rd.	1 yelloware, undecorated	Aug. 1998	DH
040	1	1	Evans	9EV116	Chicora	Fort Stewart #8	Sur. E/Rd.	5 stoneware, grey saltglaze	Aug. 1998	DH
040	1	1	Evans	9EV116	Chicora	Fort Stewart #8	Sur. E/Rd.	1 stoneware, alkaline glaze exterior	Aug. 1998	DH
040	1	1	Evans	9EV116	Chicora	Fort Stewart #8	Sur. E/Rd.	1 stoneware, white bristol exterior	Aug. 1998	DH
040	1	1	Evans	9EV116	Chicora	Fort Stewart #8	Sur. E/Rd.	2 stoneware, albany glaze exterior	Aug. 1998	DH
040	2	1	Evans	9EV116	Chicora	Fort Stewart #8	Sur. E/Rd.	6 black glass	Aug. 1998	DH
040	2	1	Evans	9EV116	Chicora	Fort Stewart #8	Sur. E/Rd.	3 blue glass	Aug. 1998	DH
040	2	1	Evans	9EV116	Chicora	Fort Stewart #8	Sur. E/Rd.	3 milk glass	Aug. 1998	DH
040	2	1	Evans	9EV116	Chicora	Fort Stewart #8	Sur. E/Rd.	1 light green glass	Aug. 1998	DH
040	2	1	Evans	9EV116	Chicora	Fort Stewart #8	Sur. E/Rd.	2 aqua glass	Aug. 1998	DH
040	2	1	Evans	9EV116	Chicora	Fort Stewart #8	Sur. E/Rd.	1 manganese glass	Aug. 1998	DH
040	2	1	Evans	9EV116	Chicora	Fort Stewart #8	Sur. E/Rd.	2 clear glass	Aug. 1998	DH
040	2	1	Evans	9EV116	Chicora	Fort Stewart #8	Sur. E/Rd.	2 melted glass	Aug. 1998	DH
040	2	1	Evans	9EV116	Chicora	Fort Stewart #8	Sur. E/Rd.	4 brick fragments	Aug. 1998	DH
040	2	1	Evans	9EV116	Chicora	Fort Stewart #8	Sur. E/Rd.	3 window glass	Aug. 1998	DH
040	1	2	Evans	9EV116	Chicora	Fort Stewart #8	Sur. W/Rd.	1 undecorated pearlware	Aug. 1998	DH
040	1	2	Evans	9EV116	Chicora	Fort Stewart #8	Sur. W/Rd.	12 undecorated whiteware	Aug. 1998	DH
040	1	2	Evans	9EV116	Chicora	Fort Stewart #8	Sur. W/Rd.	2 blue edged whiteware	Aug. 1998	DH
040	1	2	Evans	9EV116	Chicora	Fort Stewart #8	Sur. W/Rd.	1 blue handpainted whiteware	Aug. 1998	DH
040	1	2	Evans	9EV116	Chicora	Fort Stewart #8	Sur. W/Rd.	1 poly handpainted whiteware	Aug. 1998	DH
040	1	2	Evans	9EV116	Chicora	Fort Stewart #8	Sur. W/Rd.	1 grey saltglazed stoneware	Aug. 1998	DH
040	1	2	Evans	9EV116	Chicora	Fort Stewart #8	Sur. W/Rd.	1 white bristol and cobalt stoneware	Aug. 1998	DH
040	1	2	Evans	9EV116	Chicora	Fort Stewart #8	Sur. W/Rd.	3 stoneware, bristol exterior	Aug. 1998	DH
040	2	2	Evans	9EV116	Chicora	Fort Stewart #8	Sur. W/Rd.	2 brown glass	Aug. 1998	DH
040	2	2	Evans	9EV116	Chicora	Fort Stewart #8	Sur. W/Rd.	2 blue glass	Aug. 1998	DH
040	2	2	Evans	9EV116	Chicora	Fort Stewart #8	Sur. W/Rd.	1 light green glass	Aug. 1998	DH
040	2	2	Evans	9EV116	Chicora	Fort Stewart #8	Sur. W/Rd.	2 aqua glass	Aug. 1998	DH
040	2	2	Evans	9EV116	Chicora	Fort Stewart #8	Sur. W/Rd.	3 milk glass	Aug. 1998	DH
040	2	2	Evans	9EV116	Chicora	Fort Stewart #8	Sur. W/Rd.	8 clear glass	Aug. 1998	DH
040	2	2	Evans	9EV116	Chicora	Fort Stewart #8	Sur. W/Rd.	1 melted glass	Aug. 1998	DH
040	2	2	Evans	9EV116	Chicora	Fort Stewart #8	Sur. W/Rd.	9 window glass	Aug. 1998	DH
040	1	2	Evans	9EV116	Chicora	Fort Stewart #8	Sur. W/Rd.	1 aluminum vehicle registration tag	Aug. 1998	DH
040	1	3	Evans	9EV116	Chicora	Fort Stewart #8	Sur. In Rd	3 undecorated whiteware	Aug. 1998	DH
040	1	3	Evans	9EV116	Chicora	Fort Stewart #8	Sur. In Rd	1 burnt refined earthenware	Aug. 1998	DH
040	1	3	Evans	9EV116	Chicora	Fort Stewart #8	Sur. In Rd	2 grey saltglazed stoneware	Aug. 1998	DH
040	1	3	Evans	9EV116	Chicora	Fort Stewart #8	Sur. In Rd	1 bristol exterior stoneware	Aug. 1998	DH
040	1	3	Evans	9EV116	Chicora	Fort Stewart #8	Sur. In Rd	1 albany exterior stoneware	Aug. 1998	DH
040	2	3	Evans	9EV116	Chicora	Fort Stewart #8	Sur. In Rd	1 light green glass	Aug. 1998	DH

Acc. #	Box	Bag	County	Site #	Contractor	Project	Prov.	Contents	Date	Initial
040	2	3	Evans	9EV116	Chicora	Fort Stewart #8	Sur. in Rd	1 manganese glass	Aug. 1998	DH
040	2	3	Evans	9EV116	Chicora	Fort Stewart #8	Sur. in Rd	1 window glass	Aug. 1998	DH
040	1	4	Evans	9EV117	Chicora	Fort Stewart #8	Sur. E/Rd.	1 undecorated whiteware	Aug. 1998	DH
040	2	5	Evans	9EV117	Chicora	Fort Stewart #8	Sur. W/Rd.	1 opaque blue glass	Aug. 1998	DH
040	2	5	Evans	9EV117	Chicora	Fort Stewart #8	Sur. W/Rd.	2 chert flakes, primary/tertiary	Aug. 1998	DH
040	1	6	Evans	9EV117	Chicora	Fort Stewart #8	Sur. in Rd	2 undecorated whiteware	Aug. 1998	DH
040	1	6	Evans	9EV117	Chicora	Fort Stewart #8	Sur. in Rd	1 whiteware, with portions of maker's mark	Aug. 1998	DH
040	1	6	Evans	9EV117	Chicora	Fort Stewart #8	Sur. in Rd	3 blue edged whiteware	Aug. 1998	DH
040	2	6	Evans	9EV117	Chicora	Fort Stewart #8	Sur. in Rd	1 manganese glass	Aug. 1998	DH
040	1	7	Evans	9EV118	Chicora	Fort Stewart #8	N200E200	1undecorated whiteware	Aug. 1998	DH
040	1	8	Evans	9EV119	Chicora	Fort Stewart #8	CU 4	1 molded whiteware	Aug. 1998	DH
040	2	9	Evans	9EV119	Chicora	Fort Stewart #8	CU 14	1 milk glass	Aug. 1998	DH
040	2	9	Evans	9EV119	Chicora	Fort Stewart #8	CU 14	1 clear glass	Aug. 1998	DH
040	1	10	Evans	9EV119	Chicora	Fort Stewart #8	CU 36	1 bristol exterior stoneware	Aug. 1998	DH
040	2	10	Evans	9EV119	Chicora	Fort Stewart #8	CU 36	1 manganese glass	Aug. 1998	DH
040	1	11	Evans	9EV119	Chicora	Fort Stewart #8	CU 37	1 undecorated whiteware	Aug. 1998	DH
040	2	12	Evans	9EV119	Chicora	Fort Stewart #8	CU 38	1 milk glass	Aug. 1998	DH
040	2	12	Evans	9EV119	Chicora	Fort Stewart #8	CU 38	1 brick fragment	Aug. 1998	DH
040	1	13	Evans	9EV119	Chicora	Fort Stewart #8	CU 39	1undecorated whiteware	Aug. 1998	DH
040	1	13	Evans	9EV119	Chicora	Fort Stewart #8	CU 39	1 pink edged whiteware	Aug. 1998	DH
040	2	13	Evans	9EV119	Chicora	Fort Stewart #8	CU 39	1 milk glass	Aug. 1998	DH
040	2	13	Evans	9EV119	Chicora	Fort Stewart #8	CU 39	1 aqua glass	Aug. 1998	DH
040	2	13	Evans	9EV119	Chicora	Fort Stewart #8	CU 39	7 window glass	Aug. 1998	DH
040	2	14	Evans	9EV119	Chicora	Fort Stewart #8	CU 40	1 aqua glass	Aug. 1998	DH
040	1	15	Evans	9EV119	Chicora	Fort Stewart #8	CU 41	1 undecorated whiteware	Aug. 1998	DH
040	2	16	Evans	9EV119	Chicora	Fort Stewart #8	CU 48	2 milk glass	Aug. 1998	DH
040	1	17	Evans	9EV119	Chicora	Fort Stewart #8	CU 49	3 undecorated whiteware	Aug. 1998	DH
040	1	17	Evans	9EV119	Chicora	Fort Stewart #8	CU 49	1 porcelain, no glaze	Aug. 1998	DH
040	2	17	Evans	9EV119	Chicora	Fort Stewart #8	CU 49	6 milk glass	Aug. 1998	DH
040	2	17	Evans	9EV119	Chicora	Fort Stewart #8	CU 49	1 manganese glass	Aug. 1998	DH
040	2	17	Evans	9EV119	Chicora	Fort Stewart #8	CU 49	1 wire cut nail fragment	Aug. 1998	DH
040	1	18	Evans	9EV119	Chicora	Fort Stewart #8	CU 57	4 undecorated whiteware	Aug. 1998	DH
040	2	18	Evans	9EV119	Chicora	Fort Stewart #8	CU 57	1 blue glass	Aug. 1998	DH
040	2	18	Evans	9EV119	Chicora	Fort Stewart #8	CU 57	1 aqua glass	Aug. 1998	DH
040	2	18	Evans	9EV119	Chicora	Fort Stewart #8	CU 57	1 milk glass	Aug. 1998	DH
040	2	18	Evans	9EV119	Chicora	Fort Stewart #8	CU 57	14 clear glass	Aug. 1998	DH
040	1	19	Evans	9EV119	Chicora	Fort Stewart #8	CU 58	1 white bristol exterior stoneware	Aug. 1998	DH
040	1	19	Evans	9EV119	Chicora	Fort Stewart #8	CU 58	1 burnt refined earthenware	Aug. 1998	DH
040	2	19	Evans	9EV119	Chicora	Fort Stewart #8	CU 58	3 aqua glass	Aug. 1998	DH
040	2	19	Evans	9EV119	Chicora	Fort Stewart #8	CU 58	3 clear glass	Aug. 1998	DH
040	1	20	Evans	9EV119	Chicora	Fort Stewart #8	CU 59	1 molded, cream tint whiteware	Aug. 1998	DH
040	2	20	Evans	9EV119	Chicora	Fort Stewart #8	CU 59	3 clear glass	Aug. 1998	DH
040	2	20	Evans	9EV119	Chicora	Fort Stewart #8	CU 59	1 brick fragment	Aug. 1998	DH
040	2	21	Evans	9EV119	Chicora	Fort Stewart #8	CU 60	1 melted glass	Aug. 1998	DH

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040	1	22	Evans	9EV119	Chicora	Fort Stewart #8	CU 67	1 milk glass, large frag. preserve jar lid	Aug. 1998	DH
040	2	22	Evans	9EV119	Chicora	Fort Stewart #8	CU 67	1 clear glass	Aug. 1998	DH
040	1	23	Evans	9EV119	Chicora	Fort Stewart #8	CU 74	1 whiteware, imprinted maker's mark	Aug. 1998	DH
040	2	23	Evans	9EV119	Chicora	Fort Stewart #8	CU 74	1 milk glass	Aug. 1998	DH
040	2	23	Evans	9EV119	Chicora	Fort Stewart #8	CU 74	1 aqua glass	Aug. 1998	DH
040	2	24	Evans	9EV120	Chicora	Fort Stewart #8	CU 2	1 green glass	Aug. 1998	DH
040	2	24	Evans	9EV120	Chicora	Fort Stewart #8	CU 2	1 aqua glass	Aug. 1998	DH
040	2	24	Evans	9EV120	Chicora	Fort Stewart #8	CU 2	1 manganese glass	Aug. 1998	DH
040	2	24	Evans	9EV120	Chicora	Fort Stewart #8	CU 2	1 brick fragment	Aug. 1998	DH
040	1	25	Evans	9EV120	Chicora	Fort Stewart #8	CU 6	1 undecorated whiteware	Aug. 1998	DH
040	1	26	Evans	9EV120	Chicora	Fort Stewart #8	CU 15	1 undecorated whiteware	Aug. 1998	DH
040	1	27	Evans	9EV120	Chicora	Fort Stewart #8	T30 SC4	1 undecorated whiteware	Aug. 1998	DH
040	1	28	Evans	9EV121	Chicora	Fort Stewart #8	CU 1	1 herty cup fragment	Aug. 1998	DH
040	1	29	Evans	9EV121	Chicora	Fort Stewart #8	CU 2	1 alkaline exterior stoneware	Aug. 1998	DH
040	2	30	Evans	9EV121	Chicora	Fort Stewart #8	CU 3	1 window glass	Aug. 1998	DH
040	1	31	Evans	9EV121	Chicora	Fort Stewart #8	CU 6	1 undecorated whiteware	Aug. 1998	DH
040	1	32	Evans	9EV121	Chicora	Fort Stewart #8	CU 11	1 undecorated whiteware	Aug. 1998	DH
040	2	32	Evans	9EV121	Chicora	Fort Stewart #8	CU 11	1 clear glass	Aug. 1998	DH
040	2	32	Evans	9EV121	Chicora	Fort Stewart #8	CU 11	1 window glass	Aug. 1998	DH
040	1	33	Evans	9EV121	Chicora	Fort Stewart #8	CU 25	1 albany interior stoneware	Aug. 1998	DH
040	1	34	Evans	9EV121	Chicora	Fort Stewart #8	CU 27	1 undecorated whiteware	Aug. 1998	DH
040	2	35	Evans	9EV121	Chicora	Fort Stewart #8	CU 29	1 milk glass	Aug. 1998	DH
040	1	36	Evans	9EV121	Chicora	Fort Stewart #8	CU 32	1 blue transfer printed whiteware	Aug. 1998	DH
040	2	36	Evans	9EV121	Chicora	Fort Stewart #8	CU 32	1 light green glass	Aug. 1998	DH
040	2	37	Evans	9EV121	Chicora	Fort Stewart #8	CU 33	1 clear glass	Aug. 1998	DH
040	2	38	Evans	9EV121	Chicora	Fort Stewart #8	CU 41	1 clear glass	Aug. 1998	DH
040	1	39	Evans	9EV122	Chicora	Fort Stewart #8	Surface Rd	2 undecorated whiteware	Aug. 1998	DH
040	2	39	Evans	9EV122	Chicora	Fort Stewart #8	Surface Rd	2 light green glass	Aug. 1998	DH
040	1	40	Evans	9EV123	Chicora	Fort Stewart #8	Surface Rd	1 nutting stone	Aug. 1998	DH
040	2	41	Liberty	9LI312	Chicora	Fort Stewart #8	N40 E160	2 manganese glass	Aug. 1998	DH
040	1	42	Liberty	9LI312	Chicora	Fort Stewart #8	N100E140	2 undecorated whiteware	Aug. 1998	DH
040	2	42	Liberty	9LI312	Chicora	Fort Stewart #8	N100E140	1 clear glass	Aug. 1998	DH
040	2	42	Liberty	9LI312	Chicora	Fort Stewart #8	N100E140	1 wire cut nail	Aug. 1998	DH
040	2	43	Liberty	9LI312	Chicora	Fort Stewart #8	N120 E140	1 UID nail fragment	Aug. 1998	DH
040	1	44	Liberty	9LI312	Chicora	Fort Stewart #8	Sur. 3B	1 light green glass	Aug. 1998	DH
040	2	45	Liberty	9LI312	Chicora	Fort Stewart #8	N220 E110	11 clear glass	Aug. 1998	DH
040	2	45	Liberty	9LI312	Chicora	Fort Stewart #8	N220 E110	1 window glass	Aug. 1998	DH
040	2	46	Liberty	9LI312	Chicora	Fort Stewart #8	TU3B 0-10cm	3 clear glass	Aug. 1998	DH
040	2	46	Liberty	9LI312	Chicora	Fort Stewart #8	TU3B 0-10 cm	3 window glass	Aug. 1998	DH
040	2	47	Liberty	9LI312	Chicora	Fort Stewart #8	TU3B 10-20cm	3 clear glass	Aug. 1998	DH
040	2	47	Liberty	9LI312	Chicora	Fort Stewart #8	TU3B 10-20cm	3 window glass	Aug. 1998	DH
040	2	47	Liberty	9LI312	Chicora	Fort Stewart #8	TU3B 10-20cm	2 wire cut nails	Aug. 1998	DH
040	2	48	Liberty	9LI312	Chicora	Fort Stewart #8	TU3B Fea. 1	1 clear glass	Aug. 1998	DH
040	2	48	Liberty	9LI312	Chicora	Fort Stewart #8	TU3B Fea. 1	2 leather fragments	Aug. 1998	DH

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040	1	49	Liberty	9LI312	Chicora	Fort Stewart #8	Sur. 4B	1 undecorated whiteware	Aug. 1998	DH
040	2	49	Liberty	9LI312	Chicora	Fort Stewart #8	Sur. 4B	1 clear glass	Aug. 1998	DH
040	2	49	Liberty	9LI312	Chicora	Fort Stewart #8	Sur. 4B	1 milk glass	Aug. 1998	DH
040	2	49	Liberty	9LI312	Chicora	Fort Stewart #8	Sur. 4B	2 aqua glass	Aug. 1998	DH
040	2	49	Liberty	9LI312	Chicora	Fort Stewart #8	Sur. 4B	1 window glass	Aug. 1998	DH
040	1	50	Liberty	9LI312	Chicora	Fort Stewart #8	N230 E190	1 undecorated whiteware	Aug. 1998	DH
040	1	50	Liberty	9LI312	Chicora	Fort Stewart #8	N230 E190	1 decalcomania whiteware	Aug. 1998	DH
040	2	50	Liberty	9LI312	Chicora	Fort Stewart #8	N230 E190	1 clear glass	Aug. 1998	DH
040	1	51	Liberty	9LI312	Chicora	Fort Stewart #8	N240 E190	2 undecorated whiteware	Aug. 1998	DH
040	2	51	Liberty	9LI312	Chicora	Fort Stewart #8	N240 E190	1 green glass	Aug. 1998	DH
040	2	51	Liberty	9LI312	Chicora	Fort Stewart #8	N240 E190	3 manganese glass	Aug. 1998	DH
040	2	51	Liberty	9LI312	Chicora	Fort Stewart #8	N240 E190	3 clear glass	Aug. 1998	DH
040	2	51	Liberty	9LI312	Chicora	Fort Stewart #8	N240 E190	1 melted glass	Aug. 1998	DH
040	1	52	Liberty	9LI312	Chicora	Fort Stewart #8	N250 E180	1 undecorated whiteware	Aug. 1998	DH
040	1	52	Liberty	9LI312	Chicora	Fort Stewart #8	N250 E180	1 white porcelain	Aug. 1998	DH
040	1	52	Liberty	9LI312	Chicora	Fort Stewart #8	N250 E180	1 bristol glazed stoneware	Aug. 1998	DH
040	2	52	Liberty	9LI312	Chicora	Fort Stewart #8	N250 E180	4 brown glass	Aug. 1998	DH
040	2	52	Liberty	9LI312	Chicora	Fort Stewart #8	N250 E180	1 aqua glass	Aug. 1998	DH
040	2	52	Liberty	9LI312	Chicora	Fort Stewart #8	N250 E180	2 manganese glass	Aug. 1998	DH
040	2	52	Liberty	9LI312	Chicora	Fort Stewart #8	N250 E180	3 clear glass	Aug. 1998	DH
040	2	52	Liberty	9LI312	Chicora	Fort Stewart #8	N250 E180	4 window glass	Aug. 1998	DH
040	1	53	Liberty	9LI312	Chicora	Fort Stewart #8	N260 E180	1 burnt whiteware	Aug. 1998	DH
040	2	53	Liberty	9LI312	Chicora	Fort Stewart #8	N260 E180	2 clear glass with luster	Aug. 1998	DH
040	2	53	Liberty	9LI312	Chicora	Fort Stewart #8	N260 E180	1 milk glass	Aug. 1998	DH
040	2	53	Liberty	9LI312	Chicora	Fort Stewart #8	N260 E180	5 aqua glass	Aug. 1998	DH
040	2	53	Liberty	9LI312	Chicora	Fort Stewart #8	N260 E180	2 melted glass	Aug. 1998	DH
040	2	54	Liberty	9LI312	Chicora	Fort Stewart #8	N260 E190	1 clear glass	Aug. 1998	DH
040	2	54	Liberty	9LI312	Chicora	Fort Stewart #8	N260 E190	1 window glass	Aug. 1998	DH
040	1	55	Liberty	9LI312	Chicora	Fort Stewart #8	N260 E200	1 undecorated whiteware	Aug. 1998	DH
040	2	55	Liberty	9LI312	Chicora	Fort Stewart #8	N260 E200	1 clear glass	Aug. 1998	DH
040	2	55	Liberty	9LI312	Chicora	Fort Stewart #8	N260 E200	1 window glass	Aug. 1998	DH
040	1	56	Liberty	9LI312	Chicora	Fort Stewart #8	N270 E180	7 burnt refined earthenware	Aug. 1998	DH
040	2	56	Liberty	9LI312	Chicora	Fort Stewart #8	N270 E180	1 clear glass	Aug. 1998	DH
040	2	56	Liberty	9LI312	Chicora	Fort Stewart #8	N270 E180	3 window glass	Aug. 1998	DH
040	2	57	Liberty	9LI312	Chicora	Fort Stewart #8	N270 E190	1 window glass	Aug. 1998	DH
040	2	58	Liberty	9LI312	Chicora	Fort Stewart #8	TU4B 0-10cm	1 clear glass	Aug. 1998	DH
040	2	58	Liberty	9LI312	Chicora	Fort Stewart #8	TU4B 0-10cm	1 window glass	Aug. 1998	DH
040	1	59	Liberty	9LI312	Chicora	Fort Stewart #8	N280 E120	1 decalcomania whiteware	Aug. 1998	DH
040	2	59	Liberty	9LI312	Chicora	Fort Stewart #8	N280 E120	1 brown glass	Aug. 1998	DH
040	2	59	Liberty	9LI312	Chicora	Fort Stewart #8	N280 E120	1 clear glass	Aug. 1998	DH
040	2	59	Liberty	9LI312	Chicora	Fort Stewart #8	N280 E120	1 window glass	Aug. 1998	DH
040	2	59	Liberty	9LI312	Chicora	Fort Stewart #8	N280 E120	1 shell casing, .22 caliber	Aug. 1998	DH
040	1	60	Liberty	9LI312	Chicora	Fort Stewart #8	Sur. Area 6B	3 undecorated whiteware	Aug. 1998	DH
040	1	60	Liberty	9LI312	Chicora	Fort Stewart #8	Sur. Area 6B	1 bristol exterior stoneware	Aug. 1998	DH

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040	2	60	Liberty	9LI312	Chicora	Fort Stewart #8	Sur. Area 6B	1 black glass	Aug. 1998	DH
040	2	60	Liberty	9LI312	Chicora	Fort Stewart #8	Sur. Area 6B	3 manganese glass	Aug. 1998	DH
040	1	60	Liberty	9LI312	Chicora	Fort Stewart #8	Sur. Area 6B	1 clear glass	Aug. 1998	DH
040	2	60	Liberty	9LI312	Chicora	Fort Stewart #8	Sur. Area 6B	4 clear glass	Aug. 1998	DH
040	2	60	Liberty	9LI312	Chicora	Fort Stewart #8	Sur. Area 6B	2 window glass	Aug. 1998	DH
040	2	61	Liberty	9LI312	Chicora	Fort Stewart #8	N250 E200	1 clear glass	Aug. 1998	DH
040	2	61	Liberty	9LI312	Chicora	Fort Stewart #8	N250 E200	1 window glass	Aug. 1998	DH
040	2	61	Liberty	9LI312	Chicora	Fort Stewart #8	N250 E200	1 iron strap fragment	Aug. 1998	DH
040	2	62	Liberty	9LI312	Chicora	Fort Stewart #8	N280 E50	2 blue glass	Aug. 1998	DH
040	2	62	Liberty	9LI312	Chicora	Fort Stewart #8	N280 E50	1 clear glass	Aug. 1998	DH
040	2	62	Liberty	9LI312	Chicora	Fort Stewart #8	N280 E50	1 UID nail fragment	Aug. 1998	DH
040	1	63	Liberty	9LI312	Chicora	Fort Stewart #8	N290 E40	2 bristol glaze stoneware	Aug. 1998	DH
040	2	63	Liberty	9LI312	Chicora	Fort Stewart #8	N290 E40	1 brown glass	Aug. 1998	DH
040	2	63	Liberty	9LI312	Chicora	Fort Stewart #8	N290 E40	1 green glass	Aug. 1998	DH
040	2	63	Liberty	9LI312	Chicora	Fort Stewart #8	N290 E40	4 clear glass	Aug. 1998	DH
040	2	63	Liberty	9LI312	Chicora	Fort Stewart #8	N290 E40	1 melted glass	Aug. 1998	DH
040	2	63	Liberty	9LI312	Chicora	Fort Stewart #8	N290 E40	1 wire cut nail	Aug. 1998	DH
040	2	63	Liberty	9LI312	Chicora	Fort Stewart #8	N290 E40	1 UID iron	Aug. 1998	DH
040	1	64	Liberty	9LI312	Chicora	Fort Stewart #8	N290 E50	2 undecorated whiteware	Aug. 1998	DH
040	2	64	Liberty	9LI312	Chicora	Fort Stewart #8	N290 E50	2 clear glass	Aug. 1998	DH
040	2	64	Liberty	9LI312	Chicora	Fort Stewart #8	N290 E50	1 black glass	Aug. 1998	DH
040	2	65	Liberty	9LI312	Chicora	Fort Stewart #8	N290 E60	2 wire cut nails	Aug. 1998	DH
040	1	66	Liberty	9LI312	Chicora	Fort Stewart #8	N310 E30	1 burnt refined earthenware	Aug. 1998	DH
040	2	66	Liberty	9LI312	Chicora	Fort Stewart #8	N310 E30	1 brown glass	Aug. 1998	DH
040	2	66	Liberty	9LI312	Chicora	Fort Stewart #8	N310 E30	4 aqua glass	Aug. 1998	DH
040	2	66	Liberty	9LI312	Chicora	Fort Stewart #8	N310 E30	1 clear glass	Aug. 1998	DH
040	2	66	Liberty	9LI312	Chicora	Fort Stewart #8	N310 E30	1 window glass	Aug. 1998	DH
040	2	67	Liberty	9LI312	Chicora	Fort Stewart #8	N310 E50	1 manganese glass	Aug. 1998	DH
040	2	67	Liberty	9LI312	Chicora	Fort Stewart #8	N310 E50	1 milk glass	Aug. 1998	DH
040	2	67	Liberty	9LI312	Chicora	Fort Stewart #8	N310 E50	1 UID iron	Aug. 1998	DH
040	1	68	Liberty	9LI312	Chicora	Fort Stewart #8	N310 E60	1 bristol glaze stoneware	Aug. 1998	DH
040	2	68	Liberty	9LI312	Chicora	Fort Stewart #8	N310 E60	1 brown glass	Aug. 1998	DH
040	2	68	Liberty	9LI312	Chicora	Fort Stewart #8	N310 E60	1 clear glass	Aug. 1998	DH
040	2	68	Liberty	9LI312	Chicora	Fort Stewart #8	N310 E60	2 wire cut nails	Aug. 1998	DH
040	2	69	Liberty	9LI312	Chicora	Fort Stewart #8	N320 E40	2 window glass	Aug. 1998	DH
040	2	69	Liberty	9LI312	Chicora	Fort Stewart #8	N320 E40	1 wire cut nail	Aug. 1998	DH
040	1	70	Liberty	9LI312	Chicora	Fort Stewart #8	N320 E50	3 undecorated whiteware	Aug. 1998	DH
040	1	70	Liberty	9LI312	Chicora	Fort Stewart #8	N320 E50	1 undecorated white porcelain	Aug. 1998	DH
040	1	70	Liberty	9LI312	Chicora	Fort Stewart #8	N320 E50	1 bristol glaze stoneware	Aug. 1998	DH
040	2	70	Liberty	9LI312	Chicora	Fort Stewart #8	N320 E50	1 clear glass	Aug. 1998	DH
040	2	70	Liberty	9LI312	Chicora	Fort Stewart #8	N320 E50	1 window glass	Aug. 1998	DH
040	1	71	Liberty	9LI312	Chicora	Fort Stewart #8	N320 E60	1 undecorated whiteware	Aug. 1998	DH
040	2	71	Liberty	9LI312	Chicora	Fort Stewart #8	N320 E60	1 industrial stoneware	Aug. 1998	DH
040	2	71	Liberty	9LI312	Chicora	Fort Stewart #8	N320 E60	1 wire cut nail	Aug. 1998	DH

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040	1	72	Liberty	9LI312	Chicora	Fort Stewart #8	TU 6B 0-10cm	2 undecorated whiteware	Aug. 1998	DH
040	2	72	Liberty	9LI312	Chicora	Fort Stewart #8	TU 6B 0-10cm	1 brown glass	Aug. 1998	DH
040	2	72	Liberty	9LI312	Chicora	Fort Stewart #8	TU 6B 0-10cm	3 milk glass	Aug. 1998	DH
040	2	72	Liberty	9LI312	Chicora	Fort Stewart #8	TU 6B 0-10cm	7 clear glass	Aug. 1998	DH
040	2	72	Liberty	9LI312	Chicora	Fort Stewart #8	TU 6B 0-10cm	8 window glass	Aug. 1998	DH
040	2	72	Liberty	9LI312	Chicora	Fort Stewart #8	TU 6B 0-10cm	1 sardine can key	Aug. 1998	DH
040	2	72	Liberty	9LI312	Chicora	Fort Stewart #8	TU 6B 0-10cm	9 wire cut nails	Aug. 1998	DH
040	2	72	Liberty	9LI312	Chicora	Fort Stewart #8	TU 6B 0-10cm	2 UID nail fragments	Aug. 1998	DH
040	2	72	Liberty	9LI312	Chicora	Fort Stewart #8	TU 6B 0-10cm	1 brass cap	Aug. 1998	DH
040	1	73	Liberty	9LI312	Chicora	Fort Stewart #8	TU6B 10-20cm	3 undecorated whiteware	Aug. 1998	DH
040	1	73	Liberty	9LI312	Chicora	Fort Stewart #8	TU6B 10-20cm	1 annular whiteware	Aug. 1998	DH
040	1	73	Liberty	9LI312	Chicora	Fort Stewart #8	TU6B 10-20cm	1 red handpainted porcelain	Aug. 1998	DH
040	2	73	Liberty	9LI312	Chicora	Fort Stewart #8	TU6B 10-20cm	3 milk glass	Aug. 1998	DH
040	2	73	Liberty	9LI312	Chicora	Fort Stewart #8	TU6B 10-20cm	2 aqua glass	Aug. 1998	DH
040	2	73	Liberty	9LI312	Chicora	Fort Stewart #8	TU6B 10-20cm	1 manganese glass	Aug. 1998	DH
040	2	73	Liberty	9LI312	Chicora	Fort Stewart #8	TU6B 10-20cm	7 clear glass	Aug. 1998	DH
040	2	73	Liberty	9LI312	Chicora	Fort Stewart #8	TU6B 10-20cm	5 window glass	Aug. 1998	DH
040	2	73	Liberty	9LI312	Chicora	Fort Stewart #8	TU6B 10-20cm	2 crown caps	Aug. 1998	DH
040	2	73	Liberty	9LI312	Chicora	Fort Stewart #8	TU6B 10-20cm	1 kettle fragment	Aug. 1998	DH
040	2	73	Liberty	9LI312	Chicora	Fort Stewart #8	TU6B 10-20cm	3 wire cut nails	Aug. 1998	DH
040	2	73	Liberty	9LI312	Chicora	Fort Stewart #8	TU6B 10-20cm	3 nail fragments	Aug. 1998	DH
040	2	73	Liberty	9LI312	Chicora	Fort Stewart #8	TU6B 10-20cm	1 UID brass	Aug. 1998	DH
040	2	74	Liberty	9LI312	Chicora	Fort Stewart #8	TU6B 20-30cm	1 aqua glass	Aug. 1998	DH
040	2	74	Liberty	9LI312	Chicora	Fort Stewart #8	TU6B 20-30cm	2 milk glass	Aug. 1998	DH
040	2	74	Liberty	9LI312	Chicora	Fort Stewart #8	TU6B 20-30cm	2 clear glass	Aug. 1998	DH
040	2	74	Liberty	9LI312	Chicora	Fort Stewart #8	TU6B 20-30cm	4 window glass	Aug. 1998	DH
040	2	74	Liberty	9LI312	Chicora	Fort Stewart #8	TU6B 20-30cm	2 wire cut nails	Aug. 1998	DH
040	2	74	Liberty	9LI312	Chicora	Fort Stewart #8	TU6B 20-30cm	1 wire fragment	Aug. 1998	DH
040	1	75	Liberty	9LI312	Chicora	Fort Stewart #8	Sur. Area 7B	1 undecorated whiteware	Aug. 1998	DH
040	1	76	Liberty	9LI312	Chicora	Fort Stewart #8	N390 E350	3 burnt refined earthenware	Aug. 1998	DH
040	2	77	Liberty	9LI312	Chicora	Fort Stewart #8	N400 E350	1 window glass	Aug. 1998	DH
040	2	78	Liberty	9LI312	Chicora	Fort Stewart #8	N420 E350	1 glass clear	Aug. 1998	DH
040	2	78	Liberty	9LI312	Chicora	Fort Stewart #8	N420 E350	1 window glass	Aug. 1998	DH
040	2	78	Liberty	9LI312	Chicora	Fort Stewart #8	N420 E350	2 wire cut nails	Aug. 1998	DH
040	2	79	Liberty	9LI312	Chicora	Fort Stewart #8	TU7B 0-10cm	1 manganese glass	Aug. 1998	DH
040	2	79	Liberty	9LI312	Chicora	Fort Stewart #8	TU7B 0-10cm	2 clear glass	Aug. 1998	DH
040	2	79	Liberty	9LI312	Chicora	Fort Stewart #8	TU7B 0-10cm	2 melted glass	Aug. 1998	DH
040	2	79	Liberty	9LI312	Chicora	Fort Stewart #8	TU7B 0-10cm	2 window glass	Aug. 1998	DH
040	2	79	Liberty	9LI312	Chicora	Fort Stewart #8	TU7B 0-10cm	1 butt hinge	Aug. 1998	DH
040	2	79	Liberty	9LI312	Chicora	Fort Stewart #8	TU7B 0-10cm	1 iron escutchion	Aug. 1998	DH
040	2	79	Liberty	9LI312	Chicora	Fort Stewart #8	TU7B 0-10cm	1 machine cut nail	Aug. 1998	DH
040	2	79	Liberty	9LI312	Chicora	Fort Stewart #8	TU7B 0-10cm	16 wire cut nails	Aug. 1998	DH
040	2	80	Liberty	9LI312	Chicora	Fort Stewart #8	TU7B 10-20cm	5 clear glass	Aug. 1998	DH
040	2	80	Liberty	9LI312	Chicora	Fort Stewart #8	TU7B 10-20cm	3 melted glass	Aug. 1998	DH

	Acc		County	Site #	Contractor	Project	Prov.	Contents	Date	Initial
			Liberty	9LI312	Chicora	Fort Stewart #8	TU7B 10-20cm	1 window glass	Aug. 1998	DH
			Liberty	9LI312	Chicora	Fort Stewart #8	TU7B 10-20cm	2 machine cut nails	Aug. 1998	DH
			Liberty	9LI312	Chicora	Fort Stewart #8	TU7B 10-20cm	3 wire cut nails	Aug. 1998	DH
	Acc	81	Liberty	9LI312	Chicora	Fort Stewart #8	TU7B 20-30cm	1 melted glass	Aug. 1998	DH
04	2	81	Liberty	9LI312	Chicora	Fort Stewart #8	TU7B 20-30cm	1 window glass	Aug. 1998	DH
040	2	81	Liberty	9LI312	Chicora	Fort Stewart #8	TU7B 20-30cm	2 wire cut nails	Aug. 1998	DH
040	1	82	Liberty	9LI315	Chicora	Fort Stewart #8	N180 E200	1 undecorated whiteware	Aug. 1998	DH
040	2	82	Liberty	9LI315	Chicora	Fort Stewart #8	N180 E200	1 clear glass	Aug. 1998	DH
040	2	83	Liberty	9LI315	Chicora	Fort Stewart #8	N200 E200	2 clear glass	Aug. 1998	DH
040	2	83	Liberty	9LI315	Chicora	Fort Stewart #8	N200 E200	2 machine cut nails	Aug. 1998	DH
040	2	84	Liberty	9LI315	Chicora	Fort Stewart #8	N200 E210	1 black glass	Aug. 1998	DH
040	2	84	Liberty	9LI315	Chicora	Fort Stewart #8	N200 E210	1 clear glass	Aug. 1998	DH
040	2	84	Liberty	9LI315	Chicora	Fort Stewart #8	N200 E210	2 window glass	Aug. 1998	DH
040	1	85	Liberty	9LI315	Chicora	Fort Stewart #8	N200 E230	2 undecorated whiteware	Aug. 1998	DH
040	2	85	Liberty	9LI315	Chicora	Fort Stewart #8	N200 E230	1 brown glass	Aug. 1998	DH
040	2	85	Liberty	9LI315	Chicora	Fort Stewart #8	N200 E230	1 manganese glass	Aug. 1998	DH
040	2	85	Liberty	9LI315	Chicora	Fort Stewart #8	N200 E230	1 aqua glass	Aug. 1998	DH
040	2	85	Liberty	9LI315	Chicora	Fort Stewart #8	N200 E230	1 clear glass	Aug. 1998	DH
040	2	85	Liberty	9LI315	Chicora	Fort Stewart #8	N200 E230	2 window glass	Aug. 1998	DH
040	1	86	Liberty	9LI315	Chicora	Fort Stewart #8	N210 E200	2 undecorated whiteware	Aug. 1998	DH
040	2	86	Liberty	9LI315	Chicora	Fort Stewart #8	N210 E200	1 black glass	Aug. 1998	DH
040	2	86	Liberty	9LI315	Chicora	Fort Stewart #8	N210 E200	2 blue glass	Aug. 1998	DH
040	2	86	Liberty	9LI315	Chicora	Fort Stewart #8	N210 E200	1 manganese glass	Aug. 1998	DH
040	2	86	Liberty	9LI315	Chicora	Fort Stewart #8	N210 E200	1 clear glass	Aug. 1998	DH
040	2	86	Liberty	9LI315	Chicora	Fort Stewart #8	N210 E200	1 UID iron	Aug. 1998	DH
040	2	86	Liberty	9LI315	Chicora	Fort Stewart #8	N210 E200	1 UID nail fragment	Aug. 1998	DH
040	2	87	Liberty	9LI315	Chicora	Fort Stewart #8	N220 E200	2 manganese glass	Aug. 1998	DH
040	2	87	Liberty	9LI315	Chicora	Fort Stewart #8	N220 E200	1 UID nail fragment	Aug. 1998	DH
040	1	88	Liberty	9LI315	Chicora	Fort Stewart #8	N220 E210	2 undecorated whiteware	Aug. 1998	DH
040	2	88	Liberty	9LI315	Chicora	Fort Stewart #8	N220 E210	2 milk glass	Aug. 1998	DH
040	2	88	Liberty	9LI315	Chicora	Fort Stewart #8	N220 E210	2 aqua glass	Aug. 1998	DH
040	2	88	Liberty	9LI315	Chicora	Fort Stewart #8	N220 E210	6 clear glass	Aug. 1998	DH
040	1	89	Liberty	9LI315	Chicora	Fort Stewart #8	N220 E220	4 undecorated whiteware	Aug. 1998	DH
040	1	89	Liberty	9LI315	Chicora	Fort Stewart #8	N220 E220	1 albany glaze stoneware	Aug. 1998	DH
040	2	89	Liberty	9LI315	Chicora	Fort Stewart #8	N220 E220	1 brown glass	Aug. 1998	DH
040	2	89	Liberty	9LI315	Chicora	Fort Stewart #8	N220 E220	2 clear glass	Aug. 1998	DH
040	2	89	Liberty	9LI315	Chicora	Fort Stewart #8	N220 E220	1 window glass	Aug. 1998	DH
040	1	90	Liberty	9LI315	Chicora	Fort Stewart #8	N220 E230	1 undecorated whiteware	Aug. 1998	DH
040	1	90	Liberty	9LI315	Chicora	Fort Stewart #8	N220 E230	2 bristol glaze stoneware	Aug. 1998	DH
040	2	90	Liberty	9LI315	Chicora	Fort Stewart #8	N220 E230	1 manganese glass	Aug. 1998	DH
040	2	90	Liberty	9LI315	Chicora	Fort Stewart #8	N220 E230	5 clear glass	Aug. 1998	DH
040	1	91	Liberty	9LI315	Chicora	Fort Stewart #8	N230 E200	1 undecorated whiteware	Aug. 1998	DH
040	2	91	Liberty	9LI315	Chicora	Fort Stewart #8	N230 E200	1 brown glass	Aug. 1998	DH
040	1	92	Liberty	9LI315	Chicora	Fort Stewart #8	TU 0-10cm	2 undecorated whiteware	Aug. 1998	DH

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040	1	92	Liberty	9LI315	Chicora	Fort Stewart #8	TU 0-10cm	1 bisque porcelain doll head fragment	Aug. 1998	DH
040	2	92	Liberty	9LI315	Chicora	Fort Stewart #8	TU 0-10cm	1 aqua glass	Aug. 1998	DH
040	2	92	Liberty	9LI315	Chicora	Fort Stewart #8	TU 0-10cm	1 clear glass	Aug. 1998	DH
040	2	92	Liberty	9LI315	Chicora	Fort Stewart #8	TU 0-10cm	1 UID iron	Aug. 1998	DH
040	1	93	Liberty	9LI315	Chicora	Fort Stewart #8	TU 10-20cm	1 undecorated whiteware	Aug. 1998	DH
040	2	93	Liberty	9LI315	Chicora	Fort Stewart #8	TU 10-20cm	1 manganese glass	Aug. 1998	DH
040	2	93	Liberty	9LI315	Chicora	Fort Stewart #8	TU 10-20cm	2 window glass	Aug. 1998	DH
040	2	93	Liberty	9LI315	Chicora	Fort Stewart #8	TU 10-20cm	1 UID nail fragment	Aug. 1998	DH
040	2	94	Liberty	9LI315	Chicora	Fort Stewart #8	TU 20-30cm	7 window glass	Aug. 1998	DH
040	1	95	Liberty	9LI318	Chicora	Fort Stewart #8	N200 E200	1 stoneware	Aug. 1998	DH
040	2	96	Liberty	9LI375	Chicora	Fort Stewart #8	N190 E190	1 UID prehistoric sherd	Aug. 1998	DH
040	1	97	Liberty	9LI375	Chicora	Fort Stewart #8	N200 E200	1 undecorated whiteware	Aug. 1998	DH
040	2	98	Liberty	9LI375	Chicora	Fort Stewart #8	N220 E190	1 window glass	Aug. 1998	DH
040	2	98	Liberty	9LI375	Chicora	Fort Stewart #8	N220 E190	1 teritary chert flake	Aug. 1998	DH
040	1	99	Liberty	9LI507	Chicora	Fort Stewart #8	N150 E240	2 small prehistoric sherds	Aug. 1998	DH
040	2	100	Liberty	9LI507	Chicora	Fort Stewart #8	N170 E230	1 UID brass	Aug. 1998	DH
040	1	100	Liberty	9LI507	Chicora	Fort Stewart #8	N170 E230	1 Deptford simple stamp	Aug. 1998	DH
040	1	100	Liberty	9LI507	Chicora	Fort Stewart #8	N170 E230	2 UID prehistoric plain sherds	Aug. 1998	DH
040	2	100	Liberty	9LI507	Chicora	Fort Stewart #8	N170 E230	1 secondary chert flake	Aug. 1998	DH
040	1	101	Liberty	9LI507	Chicora	Fort Stewart #8	N170 E240	3 Deptford cord marked	Aug. 1998	DH
040	1	102	Liberty	9LI507	Chicora	Fort Stewart #8	N180 E210	3 small prehistoric sherds	Aug. 1998	DH
040	1	102	Liberty	9LI507	Chicora	Fort Stewart #8	N180 E210	1 Savannah complicated stamped	Aug. 1998	DH
040	1	102	Liberty	9LI507	Chicora	Fort Stewart #8	N180 E210	1 UID plain prehistoric sherd	Aug. 1998	DH
040	1	103	Liberty	9LI507	Chicora	Fort Stewart #8	N190 E190	1 small prehistoric sherd	Aug. 1998	DH
040	2	104	Liberty	9LI507	Chicora	Fort Stewart #8	N190 E240	1 calcinated bone	Aug. 1998	DH
040	1	104	Liberty	9LI507	Chicora	Fort Stewart #8	N190 E240	1 UID prehistoric plain sherd	Aug. 1998	DH
040	1	104	Liberty	9LI507	Chicora	Fort Stewart #8	N190 E240	1 small prehistoric sherd	Aug. 1998	DH
040	1	105	Liberty	9LI507	Chicora	Fort Stewart #8	N200 E190	1 plain Savannah sherd	Aug. 1998	DH
040	1	106	Liberty	9LI507	Chicora	Fort Stewart #8	N200 E200	1 UID plain prehistoric sherd	Aug. 1998	DH
040	1	106	Liberty	9LI507	Chicora	Fort Stewart #8	N200 E200	1 small prehistoric sherd	Aug. 1998	DH
040	1	107	Liberty	9LI507	Chicora	Fort Stewart #8	N200 E210	1 perforated soapstone disc	Aug. 1998	DH
040	1	108	Liberty	9LI507	Chicora	Fort Stewart #8	N200 E220	2 Deptford complicated stamped	Aug. 1998	DH
040	1	108	Liberty	9LI507	Chicora	Fort Stewart #8	N200 E220	1 small prehistoric sherd	Aug. 1998	DH
040	1	109	Liberty	9LI507	Chicora	Fort Stewart #8	N200 E230	1 Deptford check stamped	Aug. 1998	DH
040	2	109	Liberty	9LI507	Chicora	Fort Stewart #8	N200 E230	1 tertiary coastal chert flake	Aug. 1998	DH
040	2	110	Liberty	9LI507	Chicora	Fort Stewart #8	N200 E240	2 tertiary coastal chert flakes	Aug. 1998	DH
040	2	111	Liberty	9LI507	Chicora	Fort Stewart #8	N210 E200	1 tertiary chert flake	Aug. 1998	DH
040	1	112	Liberty	9LI507	Chicora	Fort Stewart #8	N220 E210	1 small prehistoric sherd	Aug. 1998	DH
040	1	113	Liberty	9LI507	Chicora	Fort Stewart #8	N230 E210	1 small prehistoric sherd	Aug. 1998	DH
040	1	114	Liberty	9LI507	Chicora	Fort Stewart #8	N230 E220	1 small prehistoric sherd	Aug. 1998	DH
040	1	115	Liberty	9LI507	Chicora	Fort Stewart #8	TU 38 0-10cm	1 incised Irene sherd	Aug. 1998	DH
040	1	115	Liberty	9LI507	Chicora	Fort Stewart #8	TU 38 0-10cm	1 simple stamped UID prehistoric sherd	Aug. 1998	DH
040	1	116	Liberty	9LI507	Chicora	Fort Stewart #8	TU38 20-30cm	1 small prehistoric sherd	Aug. 1998	DH
040	2	116	Liberty	9LI507	Chicora	Fort Stewart #8	TU38 20-30cm	1 tertiary chert flake	Aug. 1998	DH

Acc. #	Box	Bag	County	Site #	Contractor	Project	Prov.	Contents	Date	Initial
040	1	117	Liberty	9LI508	Chicora	Fort Stewart #8	N200 E200	1 undecorated pearlware	Aug. 1998	DH
040	1	117	Liberty	9LI508	Chicora	Fort Stewart #8	N200 E200	1 undecorated whiteware	Aug. 1998	DH
040	2	117	Liberty	9LI508	Chicora	Fort Stewart #8	N200 E200	1 secondary chert flake	Aug. 1998	DH
040	2	118	Liberty	9LI509	Chicora	Fort Stewart #8	N190 E160	1 primary chert flake	Aug. 1998	DH
040	1	119	Liberty	9LI509	Chicora	Fort Stewart #8	N190 E180	1 small prehistoric sherd	Aug. 1998	DH
040	2	120	Liberty	9LI509	Chicora	Fort Stewart #8	N190 E190	1 teritary chert flake	Aug. 1998	DH
040	1	121	Liberty	9LI509	Chicora	Fort Stewart #8	N190 E200	1 small prehistoric sherd	Aug. 1998	DH
040	1	122	Liberty	9LI509	Chicora	Fort Stewart #8	N200 E190	1 Savannah cord marked	Aug. 1998	DH
040	1	123	Liberty	9LI509	Chicora	Fort Stewart #8	N200 E200	1 Deptford cord marked	Aug. 1998	DH
040	1	124	Liberty	9LI509	Chicora	Fort Stewart #8	N200 E210	2 small prehistoric sherds	Aug. 1998	DH
040	1	125	Liberty	9LI509	Chicora	Fort Stewart #8	N210 E170	1 small prehistoric sherd	Aug. 1998	DH
040	1	126	Liberty	9LI509	Chicora	Fort Stewart #8	N210 E210	1 small prehistoric sherd	Aug. 1998	DH
040	1	127	Liberty	9LI509	Chicora	Fort Stewart #8	N210 E220	2 small prehistoric sherds	Aug. 1998	DH
040	1	128	Liberty	9LI509	Chicora	Fort Stewart #8	N220 E170	1 small prehistoric sherd	Aug. 1998	DH
040	1	129	Liberty	9LI509	Chicora	Fort Stewart #8	N220 E180	1 small prehistoric sherd	Aug. 1998	DH
040	1	130	Liberty	9LI509	Chicora	Fort Stewart #8	N220 E190	1 UID plain prehistoric sherd	Aug. 1998	DH
040	1	130	Liberty	9LI509	Chicora	Fort Stewart #8	N220 E190	3 small prehistoric sherds	Aug. 1998	DH
040	1	131	Liberty	9LI509	Chicora	Fort Stewart #8	N220 E200	1 small prehistoric sherd	Aug. 1998	DH
040	1	132	Liberty	9LI509	Chicora	Fort Stewart #8	N220 E210	1 UID prehistoric plain sherd	Aug. 1998	DH
040	1	132	Liberty	9LI509	Chicora	Fort Stewart #8	N220 E210	1 small prehistoric sherd	Aug. 1998	DH
040	2	132	Liberty	9LI509	Chicora	Fort Stewart #8	N220 E210	1 chert chunk	Aug. 1998	DH
040	1	133	Liberty	9LI509	Chicora	Fort Stewart #8	N230 E180	1 small prehistoric sherd	Aug. 1998	DH
040	1	134	Liberty	9LI509	Chicora	Fort Stewart #8	N240 E180	1 small prehistoric sherd	Aug. 1998	DH
040	1	135	Liberty	9LI509	Chicora	Fort Stewart #8	N250 E150	1 small prehistoric sherd	Aug. 1998	DH
040	1	136	Liberty	9LI509	Chicora	Fort Stewart #8	N250 E160	1 small prehistoric sherd	Aug. 1998	DH
040	1	137	Liberty	9LI509	Chicora	Fort Stewart #8	N250 E170	6 Deptford cord marked	Aug. 1998	DH
040	1	138	Liberty	9LI509	Chicora	Fort Stewart #8	N250 E180	1 Deptford cord marked	Aug. 1998	DH
040	2	138	Liberty	9LI509	Chicora	Fort Stewart #8	N250 E180	1 teritary chert flake	Aug. 1998	DH
040	1	139	Liberty	9LI509	Chicora	Fort Stewart #8	TU43 10-20cm	1 Deptford cord marked	Aug. 1998	DH
040	1	140	Liberty	9LI509	Chicora	Fort Stewart #8	TU43 20-30cm	1 Deptford cord marked	Aug. 1998	DH
040	2	140	Liberty	9LI509	Chicora	Fort Stewart #8	TU43 20-30cm	1 tertiary metavolcanic flake	Aug. 1998	DH
040	2	141	Liberty	9LI509	Chicora	Fort Stewart #8	TU43 30-40cm	3 tertiary chert flakes	Aug. 1998	DH
040	1	142	Liberty	9LI513	Chicora	Fort Stewart #8	Surface	1 undecorated whiteware	Aug. 1998	DH
040	1	142	Liberty	9LI513	Chicora	Fort Stewart #8	Surface	5 decalcomania whiteware	Aug. 1998	DH
040	1	143	Liberty	9LI514	Chicora	Fort Stewart #8	N200 E200	1 undecorated whiteware	Aug. 1998	DH
040	1	144	Liberty	9LI515	Chicora	Fort Stewart #8	N200 E200	1 small prehistoric sherd	Aug. 1998	DH
040	2	145	Liberty	9LI516	Chicora	Fort Stewart #8	N200 E200	1 manganese glass	Aug. 1998	DH
040	2	146	Liberty	9LI530	Chicora	Fort Stewart #8	N200 E180	1 UID iron	Aug. 1998	DH
040	2	147	Liberty	9LI530	Chicora	Fort Stewart #8	N200 E200	1 UID nail fragment	Aug. 1998	DH
040	1	148	Liberty	9LI531	Chicora	Fort Stewart #8	Surface	1 grey saltglazed stoneware	Aug. 1998	DH
040	2	149	Liberty	9LI531	Chicora	Fort Stewart #8	N200 E200	1 clear glass	Aug. 1998	DH
040	1	150	Liberty	9LI499	Chicora	Fort Stewart #8	T525 ST20	1 poly handpainted porcelain	Aug. 1998	DH
040	2	151	Liberty	9LI499	Chicora	Fort Stewart #8	T526 ST9	1 UID iron	Aug. 1998	DH
040	2	152	Liberty	9LI499	Chicora	Fort Stewart #8	T526 ST11	1 machine cut nail fragment	Aug. 1998	DH

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040	1	153	Liberty	9LI499	Chicora	Fort Stewart #8	T527 ST10	1 alkaline glazed stoneware	Aug. 1998	DH
040	1	154	Liberty	9LI499	Chicora	Fort Stewart #8	T529 ST15	1 brown saltglazed stoneware	Aug. 1998	DH
040	1	154	Liberty	9LI499	Chicora	Fort Stewart #8	T529 ST15	3 burnt refined earthenware	Aug. 1998	DH
040	2	154	Liberty	9LI499	Chicora	Fort Stewart #8	T529 ST15	3 clear glass	Aug. 1998	DH
040	2	154	Liberty	9LI499	Chicora	Fort Stewart #8	T529 ST15	1 machine cut nail	Aug. 1998	DH
040	2	154	Liberty	9LI499	Chicora	Fort Stewart #8	T529 ST15	1 machine cut nail fragment	Aug. 1998	DH
040	2	155	Liberty	9LI499	Chicora	Fort Stewart #8	T529 ST17	1 melted glass	Aug. 1998	DH
040	1	156	Liberty	9LI499	Chicora	Fort Stewart #8	T530 ST17	1 blue transfer print pearlware	Aug. 1998	DH
040	2	157	Liberty	9LI499	Chicora	Fort Stewart #8	T531 ST15	1 UID nail fragment	Aug. 1998	DH
040	2	158	Liberty	9LI499	Chicora	Fort Stewart #8	T531 ST17	3 light green glass	Aug. 1998	DH
040	2	159	Liberty	9LI499	Chicora	Fort Stewart #8	T532 ST14	1 machine cut nail	Aug. 1998	DH
040	2	160	Liberty	9LI499	Chicora	Fort Stewart #8	T532 ST15	1 clear glass	Aug. 1998	DH
040	1	161	Liberty	9LI499	Chicora	Fort Stewart #8	T532 ST16	1 undecorated pearlware	Aug. 1998	DH
040	1	161	Liberty	9LI499	Chicora	Fort Stewart #8	T532 ST16	1 blue edge pearlware	Aug. 1998	DH
040	1	161	Liberty	9LI499	Chicora	Fort Stewart #8	T532 ST16	1 blue transfer print whiteware	Aug. 1998	DH
040	2	162	Liberty	9LI499	Chicora	Fort Stewart #8	T533 ST18	1 UID iron	Aug. 1998	DH
040	1	163	Liberty	9LI499	Chicora	Fort Stewart #8	T535 ST17	1 brown transfer print whiteware	Aug. 1998	DH
040	1	164	Liberty	9LI499	Chicora	Fort Stewart #8	T535 ST19	2 brown saltglazed stoneware	Aug. 1998	DH
040	2	164	Liberty	9LI499	Chicora	Fort Stewart #8	T535 ST19	1 machine cut nail	Aug. 1998	DH

Acc.#	Box	Bag	County	Site #	Contractor	Project	Prov.	Contents	Date	Initial
042	1	1	Liberty	9LI259	Chicora	Fort Stewart 10	N200 E180 Su	1 undecorated whiteware	Aug. 1998	DH
042	1	2	Liberty	9LI259	Chicora	Fort Stewart 10	N215 E190 Su	1 undecorated whiteware	Aug. 1998	DH
042	2	3	Liberty	9LI259	Chicora	Fort Stewart 10	N190 E200	1 secondary chert flake	Aug. 1998	DH
042	2	4	Liberty	9LI259	Chicora	Fort Stewart 10	N200 E180	1 light green glass	Aug. 1998	DH
042	1	5	Liberty	9LI259	Chicora	Fort Stewart 10	N200 E190	1 undecorated pearlware	Aug. 1998	DH
042	1	6	Liberty	9LI259	Chicora	Fort Stewart 10	N200 E200	1 undecorated whiteware	Aug. 1998	DH
042	1	7	Liberty	9LI259	Chicora	Fort Stewart 10	N210 E190	1 undecorated creamware	Aug. 1998	DH
042	1	8	Liberty	9LI259	Chicora	Fort Stewart 10	N210 E200	1 undecorated pearlware	Aug. 1998	DH
042	2	8	Liberty	9LI259	Chicora	Fort Stewart 10	N210 E200	1 light green glass	Aug. 1998	DH
042	1	9	Liberty	9LI259	Chicora	Fort Stewart 10	N210 E210	1 white porcelain	Aug. 1998	DH
042	1	10	Liberty	9LI259	Chicora	Fort Stewart 10	N220 E160	1 blue edged pearlware	Aug. 1998	DH
042	2	10	Liberty	9LI259	Chicora	Fort Stewart 10	N220 E160	1 black glass	Aug. 1998	DH
042	1	11	Liberty	9LI259	Chicora	Fort Stewart 10	N220 E180	1 undecorated whiteware	Aug. 1998	DH
042	2	11	Liberty	9LI259	Chicora	Fort Stewart 10	N220 E180	2 black glass	Aug. 1998	DH
042	2	12	Liberty	9LI259	Chicora	Fort Stewart 10	N220 E190	1 clear glass	Aug. 1998	DH
042	1	13	Liberty	9LI259	Chicora	Fort Stewart 10	N230 E200	1 poly hand painted pearlware	Aug. 1998	DH
042	1	13	Liberty	9LI259	Chicora	Fort Stewart 10	N230 E200	1 blue transfer print whiteware	Aug. 1998	DH
042	1	14	Liberty	9LI259	Chicora	Fort Stewart 10	N250 E200	1 green transfer printed whiteware	Aug. 1998	DH
042	2	15	Liberty	9LI259	Chicora	Fort Stewart 10	TU31 0-10cm	1 black glass	Aug. 1998	DH
042	2	15	Liberty	9LI259	Chicora	Fort Stewart 10	TU31 0-10cm	1 aqua glass	Aug. 1998	DH
042	1	16	Liberty	9LI338	Chicora	Fort Stewart 10	N200 E200 Su	1 undecorated whiteware with maker's mark	Aug. 1998	DH
042	1	16	Liberty	9LI338	Chicora	Fort Stewart 10	N200 E200 Su	2 bristol glaze stoneware	Aug. 1998	DH
042	2	17	Liberty	9LI338	Chicora	Fort Stewart 10	N190 E200	1 black glass	Aug. 1998	DH
042	2	18	Liberty	9LI510	Chicora	Fort Stewart 10	N190 E180	1 milk glass	Aug. 1998	DH
042	2	18	Liberty	9LI510	Chicora	Fort Stewart 10	N190 E180	1 window glass	Aug. 1998	DH
042	2	18	Liberty	9LI510	Chicora	Fort Stewart 10	N190 E180	1 UID nail fragment	Aug. 1998	DH
042	1	19	Liberty	9LI510	Chicora	Fort Stewart 10	N190 E190	1 burnt stoneware	Aug. 1998	DH
042	2	20	Liberty	9LI510	Chicora	Fort Stewart 10	N190 E200	2 aqua glass	Aug. 1998	DH
042	2	20	Liberty	9LI510	Chicora	Fort Stewart 10	N190 E200	1 clear glass	Aug. 1998	DH
042	1	21	Liberty	9LI510	Chicora	Fort Stewart 10	N200 E200	2 undecorated whiteware	Aug. 1998	DH
042	2	21	Liberty	9LI510	Chicora	Fort Stewart 10	N200 E200	2 melted glass	Aug. 1998	DH
042	1	22	Liberty	9LI510	Chicora	Fort Stewart 10	TU49 0-10cm	1 bristol glaze stoneware	Aug. 1998	DH
042	1	22	Liberty	9LI510	Chicora	Fort Stewart 10	TU49 0-10cm	1 alkaline glaze stoneware	Aug. 1998	DH
042	2	22	Liberty	9LI510	Chicora	Fort Stewart 10	TU49 0-10cm	1 aqua glass	Aug. 1998	DH
042	2	22	Liberty	9LI510	Chicora	Fort Stewart 10	TU49 0-10cm	7 clear glass	Aug. 1998	DH
042	2	22	Liberty	9LI510	Chicora	Fort Stewart 10	TU49 0-10cm	1 wire cut nail	Aug. 1998	DH
042	1	23	Liberty	9LI510	Chicora	Fort Stewart 10	TU49 10-20cm	1 undecorated whiteware	Aug. 1998	DH
042	2	23	Liberty	9LI510	Chicora	Fort Stewart 10	TU49 10-20cm	1 brown glass	Aug. 1998	DH
042	2	23	Liberty	9LI510	Chicora	Fort Stewart 10	TU49 10-20cm	1 milk glass	Aug. 1998	DH
042	2	23	Liberty	9LI510	Chicora	Fort Stewart 10	TU49 10-20cm	1 aqua glass	Aug. 1998	DH
042	2	23	Liberty	9LI510	Chicora	Fort Stewart 10	TU49 10-20cm	7 clear glass	Aug. 1998	DH
042	2	24	Liberty	9LI510	Chicora	Fort Stewart 10	TU49 20-30cm	2 aqua glass	Aug. 1998	DH
042	2	24	Liberty	9LI510	Chicora	Fort Stewart 10	TU49 20-30cm	3 clear glass	Aug. 1998	DH

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042	2	24	Liberty	9LI510	Chicora	Fort Stewart 10	TU49 20-30cm	7 melted glass	Aug. 1998	DH
042	2	24	Liberty	9LI510	Chicora	Fort Stewart 10	TU49 20-30cm	2 UID nails	Aug. 1998	DH
042	1	24	Liberty	9LI510	Chicora	Fort Stewart 10	TU49 20-30cm	1 brass buckle	Aug. 1998	DH
042	2	25	Liberty	9LI511	Chicora	Fort Stewart 10	N200 E200	2 tertiary chert flakes	Aug. 1998	DH
042	1	26	Liberty	9LI517	Chicora	Fort Stewart 10	N160 E210 Su	1 annular pearlware	Aug. 1998	DH
042	2	26	Liberty	9LI517	Chicora	Fort Stewart 10	N160 E210 Su	1 aqua glass	Aug. 1998	DH
042	1	27	Liberty	9LI517	Chicora	Fort Stewart 10	N180 E200	1 small prehistoric sherd	Aug. 1998	DH
042	1	28	Liberty	9LI517	Chicora	Fort Stewart 10	N180 E210	1 blue edge pearlware	Aug. 1998	DH
042	2	29	Liberty	9LI517	Chicora	Fort Stewart 10	N200 E200	1 secondary chert flake	Aug. 1998	DH
042	2	30	Liberty	9LI517	Chicora	Fort Stewart 10	N220 E200	1 secondary chert flake	Aug. 1998	DH
042	2	31	Liberty	9LI517	Chicora	Fort Stewart 10	TU23 10-20cm	1 tertiary chert flake	Aug. 1998	DH
042	2	32	Liberty	9LI517	Chicora	Fort Stewart 10	TU23 20-30cm	1 heat treated secondary quart flake	Aug. 1998	DH
042	2	33	Liberty	9LI517	Chicora	Fort Stewart 10	TU23 60-70cm	1 tertiary chert flake	Aug. 1998	DH
042	2	34	Liberty	9LI517	Chicora	Fort Stewart 10	TU23 70-80cm	2 tertiary chert flakes	Aug. 1998	DH
042	1	35	Liberty	9LI518	Chicora	Fort Stewart 10	N210 E200Su	1 clear glass bottle	Aug. 1998	DH
042	1	36	Liberty	9LI518	Chicora	Fort Stewart 10	N210 E210 Su	1 poly handpainted whiteware	Aug. 1998	DH
042	1	36	Liberty	9LI518	Chicora	Fort Stewart 10	N210 E210 Su	4 burnt earthenware	Aug. 1998	DH
042	2	36	Liberty	9LI518	Chicora	Fort Stewart 10	N210 E210 Su	1 melted glass	Aug. 1998	DH
042	2	36	Liberty	9LI518	Chicora	Fort Stewart 10	N210 E210 Su	1 window glass	Aug. 1998	DH
042	1	36	Liberty	9LI518	Chicora	Fort Stewart 10	N210 E210 Su	1 small prehistoric sherd	Aug. 1998	DH
042	1	37	Liberty	9LI518	Chicora	Fort Stewart 10	TU24 Surface	1 burnt earthenware	Aug. 1998	DH
042	2	38	Liberty	9LI518	Chicora	Fort Stewart 10	N180 E210	4 wire cut nails	Aug. 1998	DH
042	1	39	Liberty	9LI518	Chicora	Fort Stewart 10	N190 E210	1 undecorated whiteware	Aug. 1998	DH
042	1	39	Liberty	9LI518	Chicora	Fort Stewart 10	N190 E210	1 alkaline glaze stoneware	Aug. 1998	DH
042	1	39	Liberty	9LI518	Chicora	Fort Stewart 10	N190 E210	1 burnt stoneware	Aug. 1998	DH
042	2	39	Liberty	9LI518	Chicora	Fort Stewart 10	N190 E210	1 aqua glass	Aug. 1998	DH
042	1	39	Liberty	9LI518	Chicora	Fort Stewart 10	N190 E210	1 Herty cup fragment	Aug. 1998	DH
042	2	40	Liberty	9LI518	Chicora	Fort Stewart 10	N200 E200	1 clear glass	Aug. 1998	DH
042	1	40	Liberty	9LI518	Chicora	Fort Stewart 10	N200 E200	1 Herty cup fragment	Aug. 1998	DH
042	2	40	Liberty	9LI518	Chicora	Fort Stewart 10	N200 E200	1 UID iron fragment	Aug. 1998	DH
042	2	41	Liberty	9LI518	Chicora	Fort Stewart 10	N200 E210	2 aqua glass	Aug. 1998	DH
042	2	41	Liberty	9LI518	Chicora	Fort Stewart 10	N200 E210	3 manganese glass	Aug. 1998	DH
042	1	42	Liberty	9LI518	Chicora	Fort Stewart 10	N200 E220	1 burnt refined earthenware	Aug. 1998	DH
042	2	43	Liberty	9LI518	Chicora	Fort Stewart 10	N210 E200	1 clear glass	Aug. 1998	DH
042	1	43	Liberty	9LI518	Chicora	Fort Stewart 10	N210 E200	1 Herty cup fragment	Aug. 1998	DH
042	1	44	Liberty	9LI518	Chicora	Fort Stewart 10	N210 E210	1 undecorated whiteware	Aug. 1998	DH
042	1	44	Liberty	9LI518	Chicora	Fort Stewart 10	N210 E210	13 burnt refined earthenware	Aug. 1998	DH
042	2	44	Liberty	9LI518	Chicora	Fort Stewart 10	N210 E210	1 milk glass	Aug. 1998	DH
042	2	44	Liberty	9LI518	Chicora	Fort Stewart 10	N210 E210	2 clear glass	Aug. 1998	DH
042	2	44	Liberty	9LI518	Chicora	Fort Stewart 10	N210 E210	5 melted glass	Aug. 1998	DH
042	2	44	Liberty	9LI518	Chicora	Fort Stewart 10	N210 E210	1 window glass	Aug. 1998	DH
042	2	44	Liberty	9LI518	Chicora	Fort Stewart 10	N210 E210	8 machine cut nails	Aug. 1998	DH
042	2	44	Liberty	9LI518	Chicora	Fort Stewart 10	N210 E210	1 UID iron	Aug. 1998	DH
042	2	45	Liberty	9LI518	Chicora	Fort Stewart 10	TU24 0-10cm	2 aqua glass	Aug. 1998	DH

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042	2	45	Liberty	9LI518	Chicora	Fort Stewart 10	TU24 0-10cm	2 clear glass	Aug. 1998	DH
042	1	45	Liberty	9LI518	Chicora	Fort Stewart 10	TU24 0-10cm	1 Herty cup fragment	Aug. 1998	DH
042	1	46	Liberty	9LI519	Chicora	Fort Stewart 10	N200 E180	2 undecorated whiteware	Aug. 1998	DH
042	1	47	Liberty	9LI519	Chicora	Fort Stewart 10	N200 E200	1 undecorated whiteware	Aug. 1998	DH
042	1	48	Liberty	9LI520	Chicora	Fort Stewart 10	N170 E190 Su	1 clear glass whole jar	Aug. 1998	DH
042	1	49	Liberty	9LI520	Chicora	Fort Stewart 10	N170 E200 Su	2 undecorated white porcelain	Aug. 1998	DH
042	1	50	Liberty	9LI520	Chicora	Fort Stewart 10	N210 E190 Su	1 clear glass whole bottle	Aug. 1998	DH
042	1	51	Liberty	9LI520	Chicora	Fort Stewart 10	N160 E180	1 undecorated whiteware	Aug. 1998	DH
042	2	52	Liberty	9LI520	Chicora	Fort Stewart 10	N160 E190	1 aqua glass	Aug. 1998	DH
042	2	52	Liberty	9LI520	Chicora	Fort Stewart 10	N160 E190	7 UID nail fragments	Aug. 1998	DH
042	2	52	Liberty	9LI520	Chicora	Fort Stewart 10	N160 E190	2 bolt fragments	Aug. 1998	DH
042	2	52	Liberty	9LI520	Chicora	Fort Stewart 10	N160 E190	1 length of chain, 4 links	Aug. 1998	DH
042	2	53	Liberty	9LI520	Chicora	Fort Stewart 10	N170 E190	1 milk glass	Aug. 1998	DH
042	2	53	Liberty	9LI520	Chicora	Fort Stewart 10	N170 E190	1 bright light green glass	Aug. 1998	DH
042	2	53	Liberty	9LI520	Chicora	Fort Stewart 10	N170 E190	1 clear glass	Aug. 1998	DH
042	1	54	Liberty	9LI520	Chicora	Fort Stewart 10	N170 E200	2 undecorated whiteware	Aug. 1998	DH
042	2	54	Liberty	9LI520	Chicora	Fort Stewart 10	N170 E200	1 wire fragment	Aug. 1998	DH
042	1	55	Liberty	9LI520	Chicora	Fort Stewart 10	N180 E190	1 undecorated whiteware	Aug. 1998	DH
042	2	55	Liberty	9LI520	Chicora	Fort Stewart 10	N180 E190	1 milk glass	Aug. 1998	DH
042	2	55	Liberty	9LI520	Chicora	Fort Stewart 10	N180 E190	1 light green glass	Aug. 1998	DH
042	2	55	Liberty	9LI520	Chicora	Fort Stewart 10	N180 E190	2 aqua glass	Aug. 1998	DH
042	2	55	Liberty	9LI520	Chicora	Fort Stewart 10	N180 E190	4 clear glass	Aug. 1998	DH
042	2	56	Liberty	9LI520	Chicora	Fort Stewart 10	N180 E200	1 brown glass	Aug. 1998	DH
042	1	57	Liberty	9LI520	Chicora	Fort Stewart 10	N190 E200	2 undecorated whiteware	Aug. 1998	DH
042	2	58	Liberty	9LI520	Chicora	Fort Stewart 10	N190 E210	2 UID nail fragments	Aug. 1998	DH
042	2	59	Liberty	9LI520	Chicora	Fort Stewart 10	N190 E220	1 UID iron	Aug. 1998	DH
042	1	60	Liberty	9LI520	Chicora	Fort Stewart 10	N200 E200	3 undecorated whiteware	Aug. 1998	DH
042	1	60	Liberty	9LI520	Chicora	Fort Stewart 10	N200 E200	2 poly handpainted whiteware	Aug. 1998	DH
042	2	60	Liberty	9LI520	Chicora	Fort Stewart 10	N200 E200	2 aqua glass, 1clear glass	Aug. 1998	DH
042	1	61	Liberty	9LI520	Chicora	Fort Stewart 10	N210 E180	1 undecorated whiteware	Aug. 1998	DH
042	2	61	Liberty	9LI520	Chicora	Fort Stewart 10	N210 E180	1 milk glass	Aug. 1998	DH
042	1	62	Liberty	9LI520	Chicora	Fort Stewart 10	N210 E190	1 burnt refined earthenware	Aug. 1998	DH
042	2	62	Liberty	9LI520	Chicora	Fort Stewart 10	N210 E190	15 clear glass	Aug. 1998	DH
042	2	62	Liberty	9LI520	Chicora	Fort Stewart 10	N210 E190	1 UID iron fragment	Aug. 1998	DH
042	2	63	Liberty	9LI520	Chicora	Fort Stewart 10	N220 E190	2 clear glass	Aug. 1998	DH
042	1	64	Liberty	9LI520	Chicora	Fort Stewart 10	N220 E200	1 undecorated whiteware	Aug. 1998	DH
042	2	64	Liberty	9LI520	Chicora	Fort Stewart 10	N220 E200	3 clear glass	Aug. 1998	DH
042	2	64	Liberty	9LI520	Chicora	Fort Stewart 10	N220 E200	1 brass nut	Aug. 1998	DH
042	1	65	Liberty	9LI520	Chicora	Fort Stewart 10	N230 E190	1 undecorated whiteware	Aug. 1998	DH
042	2	65	Liberty	9LI520	Chicora	Fort Stewart 10	N230 E190	1 aqua glass	Aug. 1998	DH
042	2	65	Liberty	9LI520	Chicora	Fort Stewart 10	N230 E190	1 clear glass	Aug. 1998	DH
042	2	65	Liberty	9LI520	Chicora	Fort Stewart 10	N230 E190	2 UID nail fragment	Aug. 1998	DH
042	1	66	Liberty	9LI520	Chicora	Fort Stewart 10	TU26 0-10cm	1 burnt porcelain	Aug. 1998	DH
042	2	66	Liberty	9LI520	Chicora	Fort Stewart 10	TU26 0-10cm	1 UID nail fragment	Aug. 1998	DH

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042	2	67	Liberty	9LI520	Chicora	Fort Stewart 10	TU26 10-20cm	1 clear glass	Aug. 1998	DH
042	2	67	Liberty	9LI520	Chicora	Fort Stewart 10	TU26 10-20cm	1 UID nail fragment	Aug. 1998	DH
042	1	68	Liberty	9LI520	Chicora	Fort Stewart 10	TU26 20-30cm	1 undecorated whiteware	Aug. 1998	DH
042	2	69	Liberty	9LI521	Chicora	Fort Stewart 10	N200 E200	1 clear glass	Aug. 1998	DH
042	2	69	Liberty	9LI521	Chicora	Fort Stewart 10	N200 E200	1 wire cut nail fragment	Aug. 1998	DH
042	1	70	Liberty	9LI522	Chicora	Fort Stewart 10	N200 E200Su	2 undecorated whiteware	Aug. 1998	DH
042	1	70	Liberty	9LI522	Chicora	Fort Stewart 10	N200 E200 Su	1 poly handpainted whiteware	Aug. 1998	DH
042	2	70	Liberty	9LI522	Chicora	Fort Stewart 10	N200 E200 Su	2 black glass	Aug. 1998	DH
042	1	71	Liberty	9LI522	Chicora	Fort Stewart 10	N200 E210 Su	1 green edge pearlware	Aug. 1998	DH
042	1	72	Liberty	9LI522	Chicora	Fort Stewart 10	N200 E200	1 brass coin, USA 5 cents "190_"	Aug. 1998	DH
042	2	73	Liberty	9LI522	Chicora	Fort Stewart 10	N200 E210	2 black glass	Aug. 1998	DH
042	2	73	Liberty	9LI522	Chicora	Fort Stewart 10	N200 E210	1 aqua glass	Aug. 1998	DH
042	1	73	Liberty	9LI522	Chicora	Fort Stewart 10	N200 E210	1 small prehistoric sherd	Aug. 1998	DH
042	1	74	Liberty	9LI522	Chicora	Fort Stewart 10	TU29 0-10cm	3 undecorated whiteware	Aug. 1998	DH
042	1	74	Liberty	9LI522	Chicora	Fort Stewart 10	TU29 0-10cm	1 poly handpainted whiteware	Aug. 1998	DH
042	2	74	Liberty	9LI522	Chicora	Fort Stewart 10	TU29 0-10cm	1 aqua glass	Aug. 1998	DH
042	1	75	Liberty	9LI523	Chicora	Fort Stewart 10	N170 E190 Su	1 bristol exterior stoneware	Aug. 1998	DH
042	2	76	Liberty	9LI523	Chicora	Fort Stewart 10	N210 E210Su	1 brown glass	Aug. 1998	DH
042	1	76	Liberty	9LI523	Chicora	Fort Stewart 10	N210 E210 Su	1 aqua glass insulator	Aug. 1998	DH
042	1	77	Liberty	9LI523	Chicora	Fort Stewart 10	N170 E190	2 bristol exterior stoneware	Aug. 1998	DH
042	2	77	Liberty	9LI523	Chicora	Fort Stewart 10	N170 E190	1 secondary chert flake	Aug. 1998	DH
042	1	78	Liberty	9LI523	Chicora	Fort Stewart 10	N170 E200	1 undecorated whiteware	Aug. 1998	DH
042	2	79	Liberty	9LI523	Chicora	Fort Stewart 10	N170 E220	9 clear glass	Aug. 1998	DH
042	1	80	Liberty	9LI523	Chicora	Fort Stewart 10	N180 E190	1 small prehistoric sherd	Aug. 1998	DH
042	2	80	Liberty	9LI523	Chicora	Fort Stewart 10	N180 E190	1 teritary chert flake	Aug. 1998	DH
042	2	81	Liberty	9LI523	Chicora	Fort Stewart 10	N180 E220	1 secondary chert flake	Aug. 1998	DH
042	1	82	Liberty	9LI523	Chicora	Fort Stewart 10	N190 E220	1 undecorated whiteware	Aug. 1998	DH
042	2	82	Liberty	9LI523	Chicora	Fort Stewart 10	N190 E220	1 window glass	Aug. 1998	DH
042	1	82	Liberty	9LI523	Chicora	Fort Stewart 10	N190 E220	1 Herty cup fragment	Aug. 1998	DH
042	1	83	Liberty	9LI523	Chicora	Fort Stewart 10	N200 E200	1 undecorated whiteware	Aug. 1998	DH
042	2	83	Liberty	9LI523	Chicora	Fort Stewart 10	N200 E200	5 aqua glass	Aug. 1998	DH
042	2	83	Liberty	9LI523	Chicora	Fort Stewart 10	N200 E200	1 manganese glass	Aug. 1998	DH
042	2	83	Liberty	9LI523	Chicora	Fort Stewart 10	N200 E200	5 clear glass	Aug. 1998	DH
042	1	84	Liberty	9LI523	Chicora	Fort Stewart 10	N200 E210	1 undecorated whiteware	Aug. 1998	DH
042	2	85	Liberty	9LI523	Chicora	Fort Stewart 10	N200 E220	3 clear glass	Aug. 1998	DH
042	1	86	Liberty	9LI523	Chicora	Fort Stewart 10	N210 E200	1 Herty cup fragment	Aug. 1998	DH
042	2	87	Liberty	9LI523	Chicora	Fort Stewart 10	N210 E210	3 brown glass	Aug. 1998	DH
042	2	87	Liberty	9LI523	Chicora	Fort Stewart 10	N210 E210	2 clear glass	Aug. 1998	DH
042	1	87	Liberty	9LI523	Chicora	Fort Stewart 10	N210 E210	1 iron buckle fragment	Aug. 1998	DH
042	2	87	Liberty	9LI523	Chicora	Fort Stewart 10	N210 E210	1 iron strap	Aug. 1998	DH
042	2	87	Liberty	9LI523	Chicora	Fort Stewart 10	N210 E210	4 wire cut nails	Aug. 1998	DH
042	2	88	Liberty	9LI523	Chicora	Fort Stewart 10	N220 E210	1 light green glass	Aug. 1998	DH
042	2	89	Liberty	9LI523	Chicora	Fort Stewart 10	N220 E220	2 aqua glass	Aug. 1998	DH
042	1	89	Liberty	9LI523	Chicora	Fort Stewart 10	N220 E220	1 pottery marble	Aug. 1998	DH

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042	2	90	Liberty	9LI523	Chicora	Fort Stewart 10	N220 E230	2 aqua glass	Aug. 1998	DH
042	2	90	Liberty	9LI523	Chicora	Fort Stewart 10	N220 E230	3 clear glass	Aug. 1998	DH
042	2	91	Liberty	9LI523	Chicora	Fort Stewart 10	N230 E210	1 manganese glass	Aug. 1998	DH
042	2	91	Liberty	9LI523	Chicora	Fort Stewart 10	N230 E210	1 wire fragment	Aug. 1998	DH
042	1	92	Liberty	9LI523	Chicora	Fort Stewart 10	N230 E220	1 small prehistoric sherd	Aug. 1998	DH
042	1	93	Liberty	9LI523	Chicora	Fort Stewart 10	N230 E230	1 small prehistoric sherd	Aug. 1998	DH
042	2	94	Liberty	9LI523	Chicora	Fort Stewart 10	N240 E210	1 clear glass	Aug. 1998	DH
042	1	95	Liberty	9LI523	Chicora	Fort Stewart 10	TU33 20-30cm	1 poly handpainted whiteware	Aug. 1998	DH
042	2	96	Liberty	9LI523	Chicora	Fort Stewart 10	TU33 30-40cm	2 iron cap fragments	Aug. 1998	DH
042	2	97	Liberty	9LI524	Chicora	Fort Stewart 10	N220 E210 Su	1 clear glass	Aug. 1998	DH
042	2	98	Liberty	9LI524	Chicora	Fort Stewart 10	TU34 Surface	1 industrial stoneware	Aug. 1998	DH
042	2	99	Liberty	9LI524	Chicora	Fort Stewart 10	N200 E200	4 clear glass	Aug. 1998	DH
042	2	100	Liberty	9LI524	Chicora	Fort Stewart 10	N210 E200	2 clear glass	Aug. 1998	DH
042	2	101	Liberty	9LI524	Chicora	Fort Stewart 10	N220 E200	1 brown glass	Aug. 1998	DH
042	2	101	Liberty	9LI524	Chicora	Fort Stewart 10	N220 E200	16 UID nail fragments	Aug. 1998	DH
042	2	102	Liberty	9LI524	Chicora	Fort Stewart 10	TU34 0-10cm	1 brown glass	Aug. 1998	DH
042	2	102	Liberty	9LI524	Chicora	Fort Stewart 10	TU34 0-10cm	1 UID nail fragment	Aug. 1998	DH
042	2	103	Liberty	9LI524	Chicora	Fort Stewart 10	TU34 10-20cm	4 brown glass	Aug. 1998	DH
042	2	103	Liberty	9LI524	Chicora	Fort Stewart 10	TU34 10-20cm	1 clear glass	Aug. 1998	DH
042	2	104	Liberty	9LI524	Chicora	Fort Stewart 10	TU34 20-30cm	1 brown glass	Aug. 1998	DH
042	1	105	Liberty	9LI525	Chicora	Fort Stewart 10	Surface	2 Herty cup fragments	Aug. 1998	DH
042	1	106	Liberty	9LI526	Chicora	Fort Stewart 10	Surface	1 Herty cup fragment	Aug. 1998	DH
042	1	107	Liberty	9LI527	Chicora	Fort Stewart 10	N160 E190	7 bristol glaze exterior stoneware	Aug. 1998	DH
042	1	108	Liberty	9LI527	Chicora	Fort Stewart 10	N180 E180	1 undecorated whiteware	Aug. 1998	DH
042	2	108	Liberty	9LI527	Chicora	Fort Stewart 10	N180 E180	4 clear glass	Aug. 1998	DH
042	2	109	Liberty	9LI527	Chicora	Fort Stewart 10	N180 E190	1 manganese glass	Aug. 1998	DH
042	2	109	Liberty	9LI527	Chicora	Fort Stewart 10	N180 E190	5 clear glass	Aug. 1998	DH
042	2	109	Liberty	9LI527	Chicora	Fort Stewart 10	N180 E190	1 window glass	Aug. 1998	DH
042	1	110	Liberty	9LI527	Chicora	Fort Stewart 10	N180 E200	1 bristol stoneware	Aug. 1998	DH
042	2	110	Liberty	9LI527	Chicora	Fort Stewart 10	N180 E200	1 aqua glass	Aug. 1998	DH
042	2	110	Liberty	9LI527	Chicora	Fort Stewart 10	N180 E200	1 clear glass	Aug. 1998	DH
042	2	110	Liberty	9LI527	Chicora	Fort Stewart 10	N180 E200	3 oyster shell fragments	Aug. 1998	DH
042	1	111	Liberty	9LI527	Chicora	Fort Stewart 10	N180 E210	2 undecorated whiteware	Aug. 1998	DH
042	2	112	Liberty	9LI527	Chicora	Fort Stewart 10	N200 E190	2 aqua glass	Aug. 1998	DH
042	2	112	Liberty	9LI527	Chicora	Fort Stewart 10	N200 E190	2 melted glass	Aug. 1998	DH
042	2	112	Liberty	9LI527	Chicora	Fort Stewart 10	N200 E190	1 machine cut nail fragment	Aug. 1998	DH
042	1	113	Liberty	9LI527	Chicora	Fort Stewart 10	N200 E200	2 undecorated whiteware	Aug. 1998	DH
042	1	113	Liberty	9LI527	Chicora	Fort Stewart 10	N200 E200	3 annular yellowware	Aug. 1998	DH
042	2	113	Liberty	9LI527	Chicora	Fort Stewart 10	N200 E200	1 wire cut nail	Aug. 1998	DH
042	1	114	Liberty	9LI527	Chicora	Fort Stewart 10	N210 E200	1 bristol glaze stoneware	Aug. 1998	DH
042	2	114	Liberty	9LI527	Chicora	Fort Stewart 10	N210 E200	1 window glass	Aug. 1998	DH
042	1	115	Liberty	9LI527	Chicora	Fort Stewart 10	N210 E210	1 undecorated whiteware	Aug. 1998	DH
042	2	115	Liberty	9LI527	Chicora	Fort Stewart 10	N210 E210	2 window glass	Aug. 1998	DH
042	1	116	Liberty	9LI527	Chicora	Fort Stewart 10	N220 E190	1 undecorated whiteware	Aug. 1998	DH

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042	1	116	Liberty	9LI527	Chicora	Fort Stewart 10	N220 E190	1 undecorated porcelain	Aug. 1998	DH
042	2	116	Liberty	9LI527	Chicora	Fort Stewart 10	N220 E190	1 melted glass	Aug. 1998	DH
042	1	117	Liberty	9LI527	Chicora	Fort Stewart 10	N220 E200	1 undecorated whiteware	Aug. 1998	DH
042	2	117	Liberty	9LI527	Chicora	Fort Stewart 10	N220 E200	1 manganese glass	Aug. 1998	DH
042	2	118	Liberty	9LI527	Chicora	Fort Stewart 10	N230 E180	3 window glass	Aug. 1998	DH
042	1	119	Liberty	9LI527	Chicora	Fort Stewart 10	N230 E190	1 undecorated whiteware	Aug. 1998	DH
042	2	119	Liberty	9LI527	Chicora	Fort Stewart 10	N230 E190	1 clear glass	Aug. 1998	DH
042	2	119	Liberty	9LI527	Chicora	Fort Stewart 10	N230 E190	1 melted glass	Aug. 1998	DH
042	2	119	Liberty	9LI527	Chicora	Fort Stewart 10	N230 E190	1 window glass	Aug. 1998	DH
042	2	120	Liberty	9LI527	Chicora	Fort Stewart 10	N230 E200	1 aqua glass	Aug. 1998	DH
042	2	120	Liberty	9LI527	Chicora	Fort Stewart 10	N230 E200	1 clear glass	Aug. 1998	DH
042	1	121	Liberty	9LI527	Chicora	Fort Stewart 10	TU50 0-10cm	6 undecorated whiteware	Aug. 1998	DH
042	2	121	Liberty	9LI527	Chicora	Fort Stewart 10	TU50 0-10cm	1 aqua glass	Aug. 1998	DH
042	2	121	Liberty	9LI527	Chicora	Fort Stewart 10	TU50 0-10cm	1 melted glass	Aug. 1998	DH
042	2	121	Liberty	9LI527	Chicora	Fort Stewart 10	TU50 0-10cm	1 wire cut nail	Aug. 1998	DH
042	1	122	Liberty	9LI527	Chicora	Fort Stewart 10	TU50 10-20cm	1 undecorated whiteware	Aug. 1998	DH
042	2	122	Liberty	9LI527	Chicora	Fort Stewart 10	TU50 10-20cm	1 green glass	Aug. 1998	DH
042	2	122	Liberty	9LI527	Chicora	Fort Stewart 10	TU50 10-20cm	4 manganese glass	Aug. 1998	DH
042	2	122	Liberty	9LI527	Chicora	Fort Stewart 10	TU50 10-20cm	3 clear glass	Aug. 1998	DH
042	2	122	Liberty	9LI527	Chicora	Fort Stewart 10	TU50 10-20cm	2 window glass	Aug. 1998	DH
042	1	123	Liberty	9LI527	Chicora	Fort Stewart 10	TU50 20-30cm	1 undecorated porcelain	Aug. 1998	DH
042	2	123	Liberty	9LI527	Chicora	Fort Stewart 10	TU50 20-30cm	3 green glass	Aug. 1998	DH
042	2	123	Liberty	9LI527	Chicora	Fort Stewart 10	TU50 20-30cm	2 window glass	Aug. 1998	DH
042	1	124	Liberty	9LI528	Chicora	Fort Stewart 10	N200 E200	1 undecorated whiteware	Aug. 1998	DH
042	1	124	Liberty	9LI528	Chicora	Fort Stewart 10	N200 E200	1 albany glaze exterior stoneware	Aug. 1998	DH
042	2	124	Liberty	9LI528	Chicora	Fort Stewart 10	N200 E200	1 clear glass	Aug. 1998	DH
042	2	125	Liberty	9LI533	Chicora	Fort Stewart 10	N200 E200	6 clear glass	Aug. 1998	DH
042	1	126	Liberty	9LI534	Chicora	Fort Stewart 10	N170 E190 Su	1 brown glass liquor bottle	Aug. 1998	DH
042	2	127	Liberty	9LI534	Chicora	Fort Stewart 10	N190 E215 Su	1 blue glass	Aug. 1998	DH
042	2	128	Liberty	9LI534	Chicora	Fort Stewart 10	N200 E200 Su	5 clear glass	Aug. 1998	DH
042	1	129	Liberty	9LI534	Chicora	Fort Stewart 10	N205 E260 Su	2 undecorated pearlware	Aug. 1998	DH
042	1	130	Liberty	9LI534	Chicora	Fort Stewart 10	N140 E220	1 whiteware undecorated	Aug. 1998	DH
042	1	131	Liberty	9LI534	Chicora	Fort Stewart 10	N160 E220	1 brown saltglazed stoneware	Aug. 1998	DH
042	2	132	Liberty	9LI534	Chicora	Fort Stewart 10	N180 E190	1 clear glass	Aug. 1998	DH
042	1	133	Liberty	9LI534	Chicora	Fort Stewart 10	N180 E210	1 undecorated whiteware	Aug. 1998	DH
042	1	133	Liberty	9LI534	Chicora	Fort Stewart 10	N180 E210	1 Herty cup fragment	Aug. 1998	DH
042	2	133	Liberty	9LI534	Chicora	Fort Stewart 10	N180 E220	1 iron knife blade fragment	Aug. 1998	DH
042	2	134	Liberty	9LI534	Chicora	Fort Stewart 10	N180 E240	1 aqua glass	Aug. 1998	DH
042	1	135	Liberty	9LI534	Chicora	Fort Stewart 10	N180 E250	1 undecorated whiteware	Aug. 1998	DH
042	2	136	Liberty	9LI534	Chicora	Fort Stewart 10	N190 E170	4 manganese glass	Aug. 1998	DH
042	2	137	Liberty	9LI534	Chicora	Fort Stewart 10	N190 E190	1 milk glass	Aug. 1998	DH
042	2	137	Liberty	9LI534	Chicora	Fort Stewart 10	N190 E190	1 clear glass	Aug. 1998	DH
042	2	137	Liberty	9LI534	Chicora	Fort Stewart 10	N190 E190	1 UID nail fragment	Aug. 1998	DH
042	2	138	Liberty	9LI534	Chicora	Fort Stewart 10	N190 E200	4 melted glass	Aug. 1998	DH

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042	2	138	Liberty	9LI534	Chicora	Fort Stewart 10	N190 E200	1 rhyolite shatter	Aug. 1998	DH
042	2	139	Liberty	9LI534	Chicora	Fort Stewart 10	N190 E210	3 UID nail fragment	Aug. 1998	DH
042	2	140	Liberty	9LI534	Chicora	Fort Stewart 10	N200 E200	1 manganese glass	Aug. 1998	DH
042	2	141	Liberty	9LI534	Chicora	Fort Stewart 10	N200 E210	1 clear glass	Aug. 1998	DH
042	2	142	Liberty	9LI534	Chicora	Fort Stewart 10	N200 E220	1 milk glass	Aug. 1998	DH
042	2	143	Liberty	9LI534	Chicora	Fort Stewart 10	N200 E250	1 tertiary chert flake	Aug. 1998	DH
042	1	144	Liberty	9LI534	Chicora	Fort Stewart 10	TU32 0-10cm	1 whole blue small glass bottle	Aug. 1998	DH
042	2	144	Liberty	9LI534	Chicora	Fort Stewart 10	TU32 0-10cm	1 tertiary chert flake	Aug. 1998	DH
042	2	145	Liberty	9LI534	Chicora	Fort Stewart 10	TU32 10-20cm	1 tertiary chert flake	Aug. 1998	DH
042	2	146	Liberty	9LI534	Chicora	Fort Stewart 10	TU32 20-30cm	1 tertiary chert flake	Aug. 1998	DH
042	2	146	Liberty	9LI534	Chicora	Fort Stewart 10	TU32 20-30cm	1 secondary quartz flake	Aug. 1998	DH